

ANDROZZI, JARED, Ph.D. The Effects of Early Clinical Teaching Experiences on Pre-Service Teachers' Self-Efficacy. (2011)
Directed by Dr. Thomas J. Martinek. 140 pp.

In-service teachers are often lack sufficient teaching experience (Block et al, 2010) that leads to being psychologically unprepared to confront many challenges in teaching. Providing ample experiences for Physical Education Teacher Education (PETE) students in a pedagogical setting parallel to that which they will one day teach (Kirk & Macdonald, 2001; Lave & Wenger, 1991) is imperative.

The purpose of this study was to investigate the psychosocial dynamics of a course specifically designed around Self-Efficacy Theory (Bandura, 1977) to improve PETE students' self-efficacy and teaching ability. Additional goals were to investigate how these factors affect pre-service teachers' self-efficacy and to discover how males' and females' perceptions of teaching during these clinical teaching experiences.

Twenty-seven PETE majors enrolled in "Teaching Educational Games" taught nine lessons they constructed to elementary-aged children from the home school community over a period of nine weeks. Subjects completed the Teacher Sense of Efficacy Scale (Tschannen, et al, 2011) prior to and after their clinical teaching experiences. Repeated measures ANOVA found a significant difference (.006, when $p < .01$) over time in subjects' overall self-efficacy. Cross-case analyses of lesson plan reflections, course evaluations, and individual interviews with six randomly-selected subjects (males $N = 3$, females, $N = 3$) found that "performance accomplishments" and "vicarious experiences" played a significant role in improving subjects' self-efficacy

while “verbal persuasions” did not. Subjects’ self-efficacy of “student engagement”, “classroom management” and use of “instructional strategies” improved as a result of “hands-on teaching”. Subjects believed that “matching teacher-student gender” was an effective method for managing misbehavior. Findings are valuable for developing PETE courses designed to improve self-efficacy, yet future research is needed on pre-service teachers’ perceptions gender and teaching.

THE EFFECTS OF EARLY CLINICAL TEACHING EXPERIENCES ON
PRE-SERVICE TEACHERS' SELF-EFFICACY

by

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A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
2011

Approved by

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APPROVAL PAGE

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April 28, 2011 _____

Date of Acceptance by Committee

April 28, 2011 _____

Date of Final Oral Examination

ACKNOWLEDGEMENTS

I would like to thank Dr. Tom “Doc” Martinek for serving as my mentor for the entire duration of my graduate education. He gave me an opportunity to have an education at a level I may never have had without his support. He challenged me and provided sound guidance in helping me to achieve my career goals. Dr. Martinek is a genuine person who made a real and positive influence in my life.

Dr. John Richards, I would like to thank for always having an open door so we could enjoy in-depth philosophical discussions about the art and science of teaching and learning. He modeled to me self-reflection and perseverance both of which are invaluable traits and tools I will use in my career and in life.

I would like to express my gratitude to Dr. Diane Gill for playing a tremendous role in initiating my fascination in the psychosocial and cultural aspects of Physical Education and Teacher Education. These elements of teaching and learning will be a major part of my research throughout my career. She enlightened me with steps teachers can take to promote equality in education and society as a whole.

I want to thank Dr. Tracy Nichols, for teaching courses that unquestionably allowed me to expand my knowledge far beyond what it was prior to course entry. In doing so, she inspired me to be a lifelong learner about our ever-changing culture. Additionally she was an excellent mentor in helping me learn to design qualitative research studies-a skill which quite challenging yet she managed to make it a very enjoyable process.

My greatest thanks go to my wife, Morgan. For when my days were tough, thinking of her always helped me lighten up and enjoy the challenges by knowing that I would see her at the start and at the end of each day. Thank you for your support and for making sure we both live life to its fullest extent. To me, her love and positive nature is truly untouchable.

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CHAPTER I

INTRODUCTION

Until now an extensive amount of valuable research has been done on in-service teachers' self-efficacy (Gibson, & Dembo, 1984; Guskey, 1988; Coladarci, 1992; Tschannen-Moran & Hoy, 2001; Chacon, 2005; Eslami & Fatihi, 2008). In addition, previous research has examined pre-service PETE teachers' self-efficacy during their senior year student-teaching experiences. Fortunately, more PETE programs have begun to include teaching experiences prior to the senior year student teaching yet there is a need for additional research on the effects on teaching self-efficacy as a result of these experiences. Knowledge that has been acquired has been encouraging (Nelson, Tice, & Theriot, 2008) and researchers (Gao et al, 2009) have recommended that future research focus upon what influences clinical teaching experiences prior to the senior year. Also, "more information is needed as to the factors that contribute to efficacy judgments and how efficacy beliefs are established" (Tschannen-Moran & Hoy, 2001, p. 802), which is especially the case of pre-service instructors. Capturing teaching opportunities in which the teacher educator can work with pre-service teachers' self-efficacy at a time when it is most malleable (Rovegno, 1998) is vital seeing that existing beliefs are more challenging to alter over time (Bandura, 1997).

Another dynamic which supported the need for this study was what sociological knowledge could be gained. Prior to this research study, a pilot study was conducted which showed a clear distinction in male and female students' perspectives on classroom management strategies. Males favored voice projection while females believed working with the child one-on-one was a more appropriate method of managing misbehavior in the gymnasium. The males attributed the source of their beliefs to traditional physical education and sports experiences prior to the pilot study. Both males and females believed that the ability to engage students is strongest in male teachers, while female teachers possess a stronger ability to manage classroom behavior. Obviously, students bring many social norms into the PETE program which affects their teaching perspectives and teaching self-efficacy. Examining these in further detail undoubtedly proved valuable in this research and the applications therein.

Teacher educators of Physical Education Teacher Education (PETE) strive to prepare pre-service instructors' with the abilities to apply their content knowledge and teaching skills in the gymnasium. Self-efficacy of teaching is an essential component to teacher development in that it can be understood as those teachers who perceive their teaching ability as effective in the learning environment in which they teach (Guskey, 1988; Chacon, 2005; Eslami & Fatihi, 2009). This process of maturing students' psychological preparedness into what their career will encompass begins by providing ample time for PETE students to become skilled in a pedagogical setting parallel to that which they will one day teach (Kirk & Macdonald, 2001; Lave & Wenger, 1991). However, sufficient teaching experiences prior to student-teaching are at times not

provided for pre-service instructors' to build a strong sense of self-efficacy. This often leads to in-service physical educators being ill-equipped in terms of prior teaching experience (Block, Taliaferro, Harris, & Krause, 2010). Chen and Rovegno's (2000) research on the use of constructivist approaches to teaching by in-service and pre-service teachers identified the "nature of short-term field experiences" (p. 370) as a barrier to the transformation of novice physical educators to expert physical educators. With pre-service teachers partaking in clinical teaching experiences to a greater extent, their teaching skills are bound to improve earlier on as their development of high self-efficacy.

The three main contributors of high self-efficacy: "performance accomplishments", "vicarious experiences", and "verbal persuasion", are all subcomponents of "Self-Efficacy Theory" (Bandura, 1977). Albert Bandura, the founder Self-Efficacy Theory (1977), a construct within Social Learning Theory (Bandura, 1977), defined self-efficacy as "the belief in one's capacities to organize and execute the courses of action required to manage prospective situations" (p. 2). Several additional factors affect pre-service teachers' self-efficacy which includes "physiological states", "emotions", and "imaginal experiences" (Bandura, 1986; Maddux, 1995; Gill, 2000). However, "performance accomplishments", "vicarious experiences", and "verbal persuasion" are the main factors examined in this study.

At a university in the southeast United States, a PETE course was specifically designed to utilize these three factors as tools for the course instructor to boost pre-service teachers' self-efficacy. This course is titled "Teaching Educational Games" and focuses on elementary and middle school physical education. The course instructor

attempted to help the pre-service teachers experience “performance accomplishments” as part of their development of various teaching skills, for example, engaging students in movement tasks. Student engagement is an invaluable teaching skill all educators must master. The course instructor did so by collaborating with the pre-service teachers in designing movement activities which offered a high likelihood of success for children. The objective being, to help the emerging teachers begin to recognize when their teaching methods were effective. Therefore, “performance accomplishments” were used as a tool to increase self-efficacy.

The second factor, observing a peer successfully perform a teaching skill, can be defined as “vicarious experiences” (Bandura, 1977). Vicarious experiences in this PETE setting were a valuable tool for boosting self-efficacy. Turns were taken teaching between the PETE students with the course instructor capitalizing on teaching opportunities when they arose. The course instructor frequently demonstrated the proper use of instructional strategies, student engagement, and classroom management in PETE courses. During this process, the course instructor often encouraged the pre-service teachers that they too, could be successful in learning and applying these skills. The third factor, “verbal persuasion” (Bandura, 1997) was the encouragement provided by peers and the course instructor and was a helpful tool in promoting pre-service teachers’ self-efficacy.

If performance accomplishments, vicarious experiences, and verbal persuasions are all occurring in a PETE course, discovering how they do in fact affect pre-service teachers’ self-efficacy is an area of research that is in need of further exploration.

Obtaining this information may be valuable for PETE programs when teacher educators are in the process of developing opportunities for students to experience clinical teaching early in their academic careers. Teacher educators might choose to adopt a similar approach as that used in the “Teaching Educational Games” course which could also use Self-Efficacy Theory as a theoretical model for the course development. But first, research on this constructive learning environment was needed to investigate the psychosocial dynamics and learning outcomes of the enrolled students. Establishing this course required the involvement of elementary and middle school students in the course in order for the pre-service teachers to experience “performance accomplishments”. The setting also required the direct involvement of the course instructor and the pre-service peers for “vicarious experiences” and “verbal persuasion”. Therefore the elementary and middle school students needed to be located in the same location as the course instructor and pre-service teachers. This was accomplished by involving the local community of home-schooled children who were not currently enrolled in public school physical education and many home school parents were interested in their children receiving physical education.

When offering the PETE students the opportunity to improve their self-efficacy via clinical teaching experiences, it was necessary to ensure that they would recognize when “performance accomplishments”, “vicarious experiences”, and “verbal persuasion” occurred and to have them constructively reflect on each. This was achieved by including the course instructor and PETE students’ in “group reflection discussions” after each clinical teaching experience. While this study examined the effects of psychological

factors which affect PETE students' teaching efficacy, it also took into account a sociological factor, gender, and its affect on teaching efficacy. Students often enter PETE programs with their own set of ideals related to gender and its place in physical activity settings. These ideals are often instilled from previous role models including but not limited to physical educators, coaches, and parents, in physical activity settings (Williams & Bedford, 2001). Unfortunately, these norms often influence teachers' into perceiving some forms of physical activity to be appropriate to only one gender (Williams & Bedford, 2001). Consequently, these upcoming physical educators might follow the same route on students' physical activity self-efficacy.

An extensive amount of research (Bandura, 1990; Lirgg, 1993; Lee et al, 1995; Satina et al, 1998; Treanor et al, 1998; Williams & Bedford, 2001) has shown that there are many detrimental effects on both male and female elementary, middle, and high school students' physical self-efficacy as a result of "gender norms" and the role of such in physical activities and sports. These norms may affect each gender's teaching self-efficacy in different ways. It is crucial for pre-service teachers to become physical educators who role-model individual acceptance of all genders (Steele, 1997; Clarke, 2006). Therefore, to better suit the aim of this study, the gender factor was examined.

Examining how the early clinical teaching experiences with children affect PETE students' self-efficacy was helpful in many ways. The findings helped determine to what level "performance accomplishments", "vicarious experiences", and "verbal persuasion" affected their teaching efficacy. The teaching skills focused upon in this study were classroom management, using instructional strategies, and engaging students, all of

which are imperative parts of effective teaching. Furthermore it was possible to understand in more detail how these experiences affected teaching self-efficacy. In doing so possible methods which could be developed and utilized for improving PETE students' teaching self-efficacy are provided.

This often leads to in-service physical educators being ill-equipped in terms of prior teaching experience (Block, Taliaferro, Harris, & Krause, 2010). Chen and Rovegno's (2000) research on the use of constructivist approaches to teaching by in-service and pre-service teachers identified the "nature of short-term field experiences" (p. 370) as a barrier to the transformation of novice physical educators to expert physical educators.

Purpose Statement

In the cases where insufficient clinical teaching experiences do occur (Chen & Rovegno, 2000), pre-service teachers enter their careers unprepared (Block, Taliaferro, Harris, & Krause, 2010) to confront the many challenges in teaching. Implementation of theoretical traditions in the development of clinical teaching experiences might harness the improvement of pre-service teachers' teaching efficacy and skills. The purpose of this study was to gain knowledge concerning the utilization of Self-Efficacy Theory in designing an undergraduate Physical Education Teacher Education (PETE) course specific to improving pre-service teachers' teaching skills and self-efficacy. This study examined the characteristics of these teaching methods and their effectiveness on PETE students' teaching efficacy.

Research Question 1

What are pre-service teachers' levels of self-efficacy prior to and after their clinical teaching experiences in a PETE course specifically-designed to improve self-efficacy and teaching ability via experiencing "performance accomplishments", "vicarious experiences", and "verbal persuasions"?

Hypothesis 1

Pre-service teachers' levels of teaching self-efficacy will significantly improve after clinical teaching experiences.

Research Question 2

How do "performance accomplishments", "vicarious experiences", and "verbal persuasions" affect pre-service teachers' self-efficacy?

Hypothesis 2

Pre-service teachers' self-efficacy will be positively affected by experiencing "performance accomplishments" allowing recognition of their teaching ability, observing peers' successes and realizing their own capabilities, and receiving feedback and encouragement from peers and teacher educator.

Research Question 3

How are males' and females' perceptions of teaching impacted during their early clinical teaching experiences?

Hypothesis 3

Male and female PETE students' teaching self-efficacy will evolve throughout the semester. Shared perspectives among both genders are likely to be a result of similar experiences in their teaching.

Definition of Terms

1. Physical Education Teacher Education (PETE). An undergraduate academic major offered at a university which state-certifies pre-service teachers as kindergarten through grade 12 physical educators in a public school setting within the state of that university.
2. Pre-service. An undergraduate student that is currently majoring in Physical Education Teacher Education in their freshman, sophomore, junior, or senior year at a university that offers state-wide certification in teaching kindergarten through grade 12 physical education.
3. Clinical Experience. A teaching experience involving students at the elementary and/or middle school level in a physical education setting.
4. Self-Efficacy. "People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994)

Definition of Terms in the Course Content

The remaining terms are part of the "instructional strategies" teaching skills component of the "Teaching Educational Games" course. The following terms were used by the course instructor and students throughout the duration of the semester.

5. Skill Themes: “Skill themes are fundamental movements that form the foundation of success in sports and physical activities in later years” (Graham, Holt/Hale, and Parker, 2007, p. 17).
6. Movement Concepts: Ideas that “describe how a skill is to be performed” (Graham, Holt/Hale, and Parker, 2007, p. 30) and are used to modify the complexity of skills.
7. Generic Levels of Skill Proficiency: A classification system of motor skill ability used to identify an individual or group of individuals as having. By order of least to most capable, the levels are listed as follows: pre-control, control, utilization, proficiency.

Significance

This study provides information about the nature and impact of psychosocial factors involved with the clinical teaching experience of pre-service instructors. The quantitative measures informed the researcher of the levels of PETE students’ self-efficacy prior to and after their clinical teaching experiences in a course specific to improving teaching skills and teaching efficacy. Significant changes in PETE students’ self-efficacy occur over time were determined. The qualitative measures provided explanations to the results of the quantitative measures by answering “how” PETE students’ self-efficacy changed over time. Seeing that this study utilized a quasi-experimental methodology, all data was used to better comprehend relationships of “performance accomplishments”, “vicarious experiences”, and “verbal persuasion” and

PETE students' self-efficacy via practical teaching experiences within this teacher education course.

This study demonstrated its importance in light of the many practical applications as well as the directions for future research. The most probable applications of the findings are for teacher educators that are designing PETE courses specific to improving self-efficacy. And very importantly, further research on pre-service students clinical teaching experiences prior to the start of their student-teaching might expand upon the findings and address the limitations of this study. Teacher educators can now have more knowledge about the effective their methods may be in improving teaching skills and self-efficacy. Knowledge was gained regarding how pre-service teachers' gender ideals affected their self-efficacy of teaching. Additionally, those teacher educators that decide to adopt a self-efficacy approach may be likely to help pre-service teachers be earlier prepared for what their career will someday encompass by gaining a realistic familiarity as competent instructors of physical education. Current knowledge was expanded upon both sociologically and psychologically in a PETE setting.

CHAPTER II

REVIEW OF LITERATURE

Theoretical Traditions

Bandura's (1997) Self-Efficacy Theory has served as a basis for much research (Block, et al, 2010; Gao, et al, 2009; Domangue, & Carson, 2008; Feltz, 2007; Eslami & Fatihi, 2008; Dowling, 2006; Chacon, 2005; Chen & Rovegno, 2000) in teacher education. Self-efficacy is defined as "People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994). In the context of this research study, teaching self-efficacy refers to a teacher's beliefs about his or her ability to effectively utilize various teaching skills. Teacher education has been the center of research examining of teachers both in-service and pre-service teaching self-efficacy. Teaching self-efficacy of particular skills, have been researched due to their importance and prioritization for quality teaching and learning, have consisted of student engagement, classroom, management, and the utilization of instructional strategies. Even as the knowledge acquired from studies in teacher education are of great value, we are in need of research exclusively in the field of Physical Education Teacher Education (PETE). The purpose of this study was to examine Physical Education Teacher Education (PETE) students' overall level of self-

efficacy and the factors which influence their efficacy of their teaching skills, particularly (a) engaging students, (b) classroom management, and (c) instructional strategies.

Self-Efficacy Theory

Albert Bandura (1977) introduced Self-Efficacy Theory as a means by which to better understand factors which affect people's self-perceptions of competence and their motivation to participate in tasks. Efficacy can be understood as value or worth (Bandura, 1986). More specifically, it is an individual's self-efficacy of ability to successfully perform a task that the self deems as valuable or worthy of accomplishment. Among these factors are the individual's "performance accomplishments", "vicarious experiences", "verbal persuasion", "physiological states", "emotions", and "imaginal experiences" (Bandura, 1986). They have been listed in the order by which have the most influence on an individual's perceived competence and motivation, respectively. While all six will be discussed, "performance accomplishments", "vicarious experiences", and "verbal persuasion" will be of special consideration.

Performance Accomplishments

Prior to engaging in a task an individual has "efficacy expectations" (Bandura, 1986) in which he or she proposes his or her ability to carry out that task and to what extent. When the time comes to actually implement these expectations, several factors influence an individual's self-efficacy, and "performance accomplishment" is a "source of efficacy [in which] information is especially influential because it is based on mastery experiences" (Bandura, 1977, p. 195). Successes and failures have positive and negative effects on self-efficacy, respectively. Bandura states however, that, "After strong

efficacy expectations are developed through repeated success the negative impact of occasional failures is likely to be reduced” (p. 195). When an individual has completed a task in a manner which they perceive as successful they are most likely to feel competent to successfully perform this task or a similar task again. In terms of self-efficacy and teaching, teachers are also likely to have increased efficacy when they believe they have the capacity to utilize the skills necessary to successfully conduct a lesson (Chacon, 2005; Berman et al, 1977), which is the case after he or she has experienced a performance accomplishment. The same applies to situations in which teachers have set specific teaching goals and objectives and these have been met throughout their teaching (Feltz, 2007). Successfully performing a task that the individual believes was too easy does not equate to he or she actually perceiving that any real accomplishment has been made (Blankenship, 2008). Therefore, this is particularly effective when the individual deemed the task to be sufficiently challenging.

Vicarious Experiences

Bandura (1977) states that “People do not rely on experienced mastery as the sole source of information concerning their level of self-efficacy” (p. 197). Therefore, an additional contributor to a strong sense of self-efficacy is “vicarious experience”. Obviously there are times individuals witness another person successfully perform a task. How this plays a role in the individual’s perception of their own ability is highly dependent on whether or not the performer identifies his or herself as similar to the observer. It is unsound to assume that all observations of a successful performance displayed by another person will positively affect the observer’s self-efficacy. For

example, a middle school-aged child may observe the physical educator demonstrate how to perform a skill yet this child is not likely to self-identify with the adult physical educator. In witnessing such, the child's efficacy expectations might be decreased due to the fact that this task may be perceived as only accomplishable by an adult or someone with much higher skill development than their own (Blankenship, 2008). When, however, the child views another individual with whom they identify, such as a peer, they are prone to vicariously learn that they, too, possess the skills necessary and therefore their self-efficacy is likely to increase. This may also be the case when pre-service teachers observe the teacher educator effectively demonstrating their teaching methods. For instance, a teacher educator might show a video of an in-service teacher effectively demonstrating classroom management techniques when working with a group of elementary-aged children that are misbehaving. The teacher educator could discuss how to effectively do so and why that technique works, both of which are beneficial to the pre-service teachers. Again however, the pre-service teachers might not feel they are at the same teaching ability as the in-service teacher shown in the video, which could be detrimental to their own teaching self-efficacy.

Verbal Persuasion

At times individuals might need "verbal persuasion" to motivate them to participate in a task. Like performance accomplishments the individual must identify with the person or people that are attempting to successfully persuade including oneself in an activity. This is the case when someone that is known and trusted encourages and persuades the individual to attempt participation in an activity. These people might

include peers, siblings, parents, coaches, and teachers. As the individual moves from childhood into adolescents persuasion from others is more likely to have a positive effect on motivation if objective assessment from an outsider is provided (Blankenship, 2008). The findings of PETE research (Martinez, et al, 2010) have found that pre-service teachers have had highly efficacious beliefs about their teaching ability even prior to their first teaching experiences. Martinez et al (2010) posited their findings to be a result of these pre-service teachers having had the “verbal persuasion of their university trainers’ encouragement and trust” (p. 262).

Emotional Arousal

There are times, however when individuals may not have experienced prior success or have viewed an individual perform the task with whom they identify. Performance accomplishments and vicarious experiences may not have been influential in motivating participation and increase perceptions of competence. Therefore, people are likely to feel anxiety prior to involving themselves in an activity. Rapid heartbeat, intensified breathing, and perspiration, are all examples of “emotional arousal” (Bandura, 1977, p. 198) or physiological arousal that someone experiences and becomes aware of when they about to engage in an activity they believe will be challenging. This may seem as though it would negatively affect motivation and for individuals not familiar with such this is likely to occur. However, some athletes undergo Psychological Skills Training (PST) with the goal to help recognize these physiological states and learn to translate them to prepare for their performance (Gill, 2000).

Many of these influential factors are interrelated in self-efficacy. Performance accomplishments, vicarious experiences, recognition or awareness of physiological states can all manipulate a person's "emotions". Maddux (1995) discussed how emotions such as being happy, sad, angry, etc. can either positively or negatively affect self-efficacy. The repercussions of such usually go hand in hand: feeling happy or excited can increase motivation whereas feeling sad might decrease motivation.

When considering all of the above-described factors, every one of the factors is interrelated with imaginal experiences. Imaginal experiences are when an individual depicts an image of the self correctly executing the skills and components involved with successfully performing the skills (Gill, 2000). These imaginal experiences can even be to a depth in which the individual imagines the self becoming aware of physiological effects and emotions as part of the process (Maddux, 1995). Research (Jones, et al, 2002; Martin et al, 1999) has supported that athletes can have improved self-efficacy when they imagine mastery of a particular motor skill prior to performance which also helped the athletes' self-management of emotional states during performance.

Demographics and Self-Efficacy

There has been a host of research for better understanding student motivation in physical education which surrounds the development and evolution of self-efficacy theory. These studies have helped us establish what types of motivation exist for individuals based on their age, gender, ethnicity (Steele, 1997), and sexuality (Clark, 2006), and as a result, how their self-efficacy is affected. Research has also been conducted on children's perceptions of ability and effort (Chase, 2001; Xiang et al, 2001)

in physical education, and cultural stereotypes of gender-appropriate activities in other areas of physical activity such as sports (Clifton & Gill, 1994). Extensive research (Samuel and Gibb, 2002) on how the nature of the physical activities in physical education affects students' motivation is also quite common.

While the above-listed research studies have contributed useful knowledge and applications in elementary through high school physical education classes we cannot assume that teacher educators can also apply these techniques to adults in PETE. Since adults obviously have more experience than elementary through high school students, Locke (1984) argued when these adults enter their education they “have acquired cognitive skills which are different from those of children in both kind and sophistication” (p. 14). Therefore, teacher educators cannot utilize all of the same teaching and learning methods that are employed when teaching children. Consequently, it is important to study PETE from an alternative standpoint than that of child and adolescent research.

When used in a pre-service research context, self-efficacy theory posits that teachers are likely to be affected by their beliefs about their ability to perform the role of teacher (Bandura, 1997). Since PETE majors rely much on their own beliefs due to lack of experience in teaching, Bandura discusses how teachers' efficacy is highly influenced by their first experiences, often during their student-teaching. PETE teacher educators must be cognizant of this, and consequently be sensitive to the experience and settings that serve as the cultivation point of their pre-service teachers' efficacy in teaching.

At one time it was not uncommon for PETE programs to begin offering undergraduates their first teaching experiences in school settings as late as their junior or senior year. It is plausible to deduce that in former PETE settings this may have led to education majors experiencing doubts about their career choice and spontaneous changes of majors. Chen and Rovegno's (2000) study on the use of constructivist approaches to teaching by in-service and pre-service teachers identified the "nature of short-term field experiences" (p. 370) as a barrier to the transformation of novice physical educators to expert physical educators. This is because the novice teachers in their study taught a total of three lesson plans, and as a result of such "they did not know the children well." The authors were not implying that it is impossible for novice teachers to complete the transition to expert teachers. Quite the contrary, they simply meant that the more teaching experience PETE majors are allotted, the more they are likely to hone their skills.

Fortunately student teachers are being offered teaching experiences earlier in their academic career. In doing so, they possibly will have had greater opportunity to become familiar with what to expect in the field and may also be more likely to develop a stronger sense of efficacy and confidence in teaching abilities. Kirk and Macdonald (2001) advocate "*legitimate* peripheral participation is intended to convey the sense of authentic or genuine participation, where a person's involvement in the practices of a community are meaningful to them as individuals" (p. 443). It is necessary for teacher educators in all fields of education to have a broad grasp on comprehending the many factors which affect their students' self-efficacy of teaching.

Teacher Education and Self-Efficacy

When attempting to gain a broad perspective of pre-service teachers' self-efficacy it will be useful to begin by reviewing the research that has been conducted on self-efficacy in other areas of teacher education. An example of research involving self-efficacy in other areas of teacher education is Chacon's (2005) study of "English as a Foreign Language" (EFL) teachers' efficacy in and its effect on perceived ability in teaching. Surveys which measured the teachers' efficacy on instructional strategies, classroom management, and student engagement were administered to a group of 100 Venezuelan teachers in 51 high schools. Chacon utilized a shortened version of the "Teacher Sense of Efficacy Scale" (TSES) developed by Tschannen-Moran and Hoy (2001), which measures efficacy for engagement, management, and instructional strategies. Results showed a positive correlation between teachers with high efficacy beliefs and their overall perceived ability in all three of these areas. These findings have also been consistent with findings in other research (Guskey, 1988) in teacher education affirming that the higher a teacher's self-efficacy, the more they believe they can utilize effective teaching skills. This was especially the case of 120 elementary and secondary teachers that were measured in perceived ability of using instructional strategies (Guskey, 1988). This study elucidates the importance of "preparing EFL teachers who are competent across the four skills (listening, speaking, reading, and writing)." While this was a study performed with the cognitive domain of learning in English, the same may be true for PETE majors' efficacy and beliefs about their ability to teach.

Other research outside of PETE was also conducted by Eslami and Fatihi (2009). Findings showed that non-native English teachers with high self-efficacy also possessed greater perceived beliefs about their teaching proficiency than did teachers with low self-efficacy. Again, the TSES was used and this study shared similar findings to those of Chacon's (2005) work. Eslami and Fatihi used participants that only had one to five years teaching experience, which is representative of teachers that are still developing a sense of self-efficacy of their teaching ability. Both research studies (Eslami & Fatihi, 2009; Chacon, 2005) illustrate the importance of gaining more detailed information regarding the variables which influence beginning and pre-service teachers' self-efficacy. Since these two studies and many others have mostly been in the broader field of teacher education, more research is needed specifically in PETE.

Although there has been much research on self-efficacy of pre-service teachers in other areas of teacher education, some research on self-efficacy in PETE has been conducted. For example, Gao et al (2009) performed research examining what effects the student-teaching experience would have on pre-service physical education majors over a four-month process. A total of 121 Physical Education majors at four different universities were pre and post-tested on their efficacy beliefs about their teaching proficiency. The pre and post tests were conducted by using the TSES (Tschannen-Moran & Hoy, 2001). It was found that student teaching had a positive effect on teachers' self-efficacy, and like Bandura's (1997) research, showed that student-teaching is a critical time in the development of student-teachers' efficacy. Gao et al (2009) also recommended that future research focus upon what possible interventions might be

conducted prior to teachers' student-teaching experiences in order to determine what influences these experience may bear on student teachers' self-efficacy.

Pre-Service to In-Service

Whether it is a pre-service or an in-service physical educator, there are many factors which influence a teacher's self-efficacy of teaching ability. A research study by Hardin (2005) examined how five practicing physical educators felt their respective PETE programs contributed to their ability to effectively work with students with disabilities. Subjects were individually interviewed for 90 minutes before and after two weeks of teaching students with disabilities in their schools. During the two weeks of teaching, observations were made which were then used to initiate discussion during the follow-up interview. The teachers stated that the three most influential factors that improved their teaching self-efficacy and confidence were teaching experiences, observing other teachers, and the PETE course they took on adaptive physical education (p. 51).

Interesting enough, although this was not a study which analyzed data by looking through a Self-Efficacy Theory lens, the themes that emerged (teaching experiences, observing other teachers, and the PETE course) clearly mark factors which affect self-efficacy: performance accomplishments and vicarious experience, respectively. The PETE course, which was much broader, encompassed many sources of efficacy, not only one. It is likely that the PETE courses which most positively influenced the teachers' efficacy when they were still PETE students did so by working directly with students with disabilities. Therefore, the PETE course might represent "performance

accomplishments”. Consistent with Self-Efficacy Theory, performance accomplishments or “Teaching Experience is Supreme” (p. 51) was the most influential of the three. For example, one teacher stated in reference to his early teaching experiences that “I mean it is kind of uncomfortable at first. You just don’t know how to act or what to say. But you get more comfortable after awhile” (p. 51). In light of these findings, it is clear that performance accomplishments and vicarious experiences were highly influential in early teachers’ improved perceptions of competence.

The findings in Rovegno’s (1998) study are also representative of how vicarious experiences can positively influence student teachers’ self-efficacy of teaching. Over a period of three years, three in-service physical educators and one pre-service instructor were interviewed 15 times, observed teaching for 11 weeks, and participated in three group interviews. The most experienced teacher and student teacher both stated that they learned about constructivist teaching during her PETE undergraduate education. Constructivist teaching approach where guided discovery is implemented rather than direct instructions was an emphasis in this study. Hence, the researchers investigated the pre-service teacher and in-service teachers’ familiarity in guiding their students through learning activities rather than giving specific and direct instructions. The less experienced in-service teacher learned about constructivist teaching once on the job. Findings revealed that the student teacher was initially uncertain when to provide feedback to students, how to apply a constructivist approach to teaching, and did not have sufficient pedagogical content knowledge (p. 147). After observing the most experienced teacher successfully use constructivist teaching, give feedback, and utilize pedagogical

content knowledge, as well as having continuously experienced more success, the student teacher's perceived competence increased (p. 153-154). The student teacher's perceived self-competence of the teaching skills described above was consistent with the researcher's evaluation during the 11 weeks of observation.

Both studies' (Hardin, 2005; Rovegno, 1998) findings represent how pre-service PETE students' self-efficacy is affected during their education, teaching experiences, and interaction with and observations of teachers successfully employing teaching skills. The teaching skills in these studies included classroom management, working with students with disabilities, engaging students, using instructional strategies, and applying theoretical approaches to teaching and learning. Studies like these, which have compared in-service and pre-service teachers' ability to successfully perform teaching, are useful in that they can offer implications on student teachers' self-efficacy, that are useful to the fruition of PETE programs.

Consider for example, Chen and Rovegno's (2000) study of the use of constructivist approaches to teaching by in-service and pre-service teachers. Findings showed that while there are of course differences between expert and novice teachers' teaching ability and effectiveness, "novice teachers exhibited some constructivist-oriented teaching practices similar to the expert teachers" (p. 370). The authors recommend that physical education teacher educators use scaffolding to offer the provisions necessary for PETE students' understanding of a constructivist-approach to teaching. As PETE programs advance their methods and consequently the competence of pre-service instructors, improved self-efficacy is likely to occur. Offering scholastic

students beginning physical educators which have greater aptitude and self-efficacy is the long-term goal of many, if not all PETE programs. Therefore, research that provides suggestions for progressing PETE programs and teacher efficacy are beneficial in the long run for physical education.

Gender Perceptions

Standards set forth by the National Association of Sport and Physical Education (NASPE, 1995) place a strong emphasis on the importance of PETE programs advocating teaching experiences fostering educational environments inclusive of students from diverse cultural backgrounds, ethnicities, and of different genders. Fortunately, the National Coalition for Women and Girls in Education (NCATE, 2002) requires that PETE university programs provide experiences for pre-service teachers to work in various cultures with the K-12 age group in addition to working with diverse higher education faculty. Research conducted by Ayers and Housner (2008) administered questionnaires to 116 university PETE programs throughout the United States. Results showed that among the many purposes of PETE programs, emphasis needs to be placed on striving to align within the curriculum the goal of preparing culturally competent teachers via teaching experiences with diverse faculty, peers, and children within the K-12 setting.

Gender has been a considerable part of teacher education research due to its significant influence on many aspects of teaching and learning in physical education. These include, but are not limited to, perceptions of competence, gender roles, gender stereotyping, behavior, and interest in physical education. Research on gender as it

relates to teaching will be scrutinized first in order to better understand the implications on how PETE programs shape prospective physical educators and promote their cultural competence. Then the relationship between teaching experience and gender will be discussed followed by the psychosocial dynamics of PETE programs and finally, directions for research in gender and teacher education.

Perceptions of Gender as it Relates to Teaching

Research (Kulinna, Cothran, & Regualos, 2006) has examined differences in male and female physical educators' reports of students' misbehavior, based on the gender of the student. A total of 303 K-12 physical education teachers participated in the Kulinna et al (2006) study on physical educators' reports of student misbehavior. Of these participants, 173 were female and 130 were male. Each participant completed the "Physical Education Classroom Management Instrument" (Kulinna, Cothran, & Regualos, 2003) which asks teachers to consider their physical education classes and rate the occurrences of male and female students' misbehavior on a scale of one to three: misbehaviors being mild, moderate, and severe, respectively (Kulinna, et al, 2006). Elementary female teachers reported more moderate and troublesome misbehavior of students than did elementary male teachers (p. 38). The three most frequent reports of female misbehavior were "talking", "lazy", and "Form[ing] cliques" (p. 37) respectively. For males, the most frequent misbehaviors were "talking", "arguing", and "swearing" (p. 37) respectively. The empirical findings provide descriptive data as a starting point for discussing research on the development of classroom management skills for pre-service teachers and the influence of gender of the teacher and teachers' perceptions of

misbehavior. More qualitative research in this topic is needed (Kulinna, et al, 2006). The authors recommend that PETE programs show videos of effective management of student misbehavior to serve as a demonstration. This is a prime example of the usefulness of “vicarious experiences” in improving pre-service teachers’ self-efficacy. More experience working with multiple age groups was also a recommendation. All things considered, Kulinna, et al (2006) believe that “Better preparation should lead to more teacher confidence and, for at least the teachers in this study, more confidence equated to fewer reported student misbehaviors” (p. 38). Understanding the complexity of these findings can be done by looking at indications from other-related research on gender of teachers and students in physical education.

Another dilemma is how gender of the teacher differentiates perceptions of student misbehavior. Three fourths of student misbehavior involving only one student was in instances where the student and the teacher were of the same sex in a secondary mixed-sex physical education class (Hardy, 1994). Male teachers felt their authority was threatened when male students misbehaved while female teachers felt that when female students misbehaved it was because the student was not trying to be a “good” female student. In other words, the female teachers believed that a female student should behave according to the gender role to which they have been assigned. Therefore, the female physical educators felt it was up to them to shape these students into what a “good” female student should be (Hardy, 1994). The unique social dynamics of gender of the teacher and the student are definitely influential in how physical educators approach classroom management. This also affects their efficacy of dealing with students of

different sexes, since they base their explanation for student misbehavior on the gender of the student.

Teaching Experience and Gender

The topic of gender and the extent of teaching experience was also part of a research study (McCormack, 1997), which administered a classroom management questionnaire to 75 pre-service instructors, and 65 experienced physical educators. Data collected from the questionnaire was used to illustrate the relationship of gender and extent of teaching experience of the teacher, and beliefs about student misbehavior and effectiveness classroom management techniques. As with the Kulinna, Cothran, and Regualos (2006) study, female teachers also reported more instances of student misbehavior. Both pre-service and in-service female physical educators in this study felt that they struggled more with managing student behavior due to their smaller physique and less voice projection than male physical educators. The female physical educators were more inclined to use disciplinary action, such as assigning detention, as a method for managing misbehavior than their male counterparts.

McCormack (1997) attributed female physical educators' reasons for using disciplinary action to lack of support from those in authority in the schools, as well as having few females in positions of authority in schools. The reasons both pre-service and in-service female physical educators felt less competent in their ability to manage classroom behavior were both biological and sociological. The biological aspect was due to females having as stated earlier, a smaller physique and less voice projection while sociological factors related to inequalities such as a lack of female physical educators in

positions of power in schools. Obviously, these factors need to be taken into consideration in the construction of PETE programs' curricula. Perhaps if physical education teacher educators help provide female pre-service instructors with effective management skills other than those that are purely biological, female PETE students and in-service physical educators will have greater self-efficacy in their teaching skills.

It is no wonder that the in-service physical educators in McCormack's (1997) research placed little priority on applying pedagogical content knowledge in implementing effective classroom management methods. Findings from Dowling's (2006) research also show PETE teacher educators' lack of understanding and utilization of pedagogical and sociological theory in guiding their approach to educating PETE students. For example, after interviewing and observing five teacher educators on two separate occasions, Dowling found that these teacher educators viewed gender as purely biological, ignoring the social construction of gender and the implications of such on a physical education learning environment. In doing so, discrimination against many females and some males is provoked (p. 248).

Teacher Education and Cultural Competence

Physical Education Teacher Education programs must use caution to avoid placing an excess emphasis on motor skill development, thereby neglecting their pre-service teachers' development of cultural competence. It is necessary to find methods that PETE programs can use to help pre-service instructors better understand student behavior, especially as it relates to gender-mixed classes. For example, Kirk (1986) recommended physical educators use less direct instruction to teach motor skills and

alternatively, PETE programs should foster culturally competent physical educators who will use an inquiry-oriented approach to teaching. The goal of doing so would be to promote learning environments which are more sensitive to cultural diversity and social skills. Kirk recognized early on that conventional PETE programs which overemphasize the technical aspects of Physical Education such as motor skill development are manufacturing teachers with “utilitarian perspectives on their teaching” (p. 231) and tend to ignore the sociological dynamics of teaching and learning. Settings which the instructor places a high value on motor skill development is most often in coaching sports which is not to be convoluted with physical education. Interestingly enough, not all undergraduates’ choice of majoring in PETE is based on wanting to be a physical educator, but rather a coach.

For example, Chelladurai, Kuga, and O’Bryant (1999) investigated 192 (122 men, 67 women) pre-service instructors’ reasons for placing greater interest and value on becoming either a physical educator or coach. The reasons were related to job significance, meaning, ease of engaging students or athletes while on the job, and task identity. Results showed that males favored coaching while females favored becoming physical educators. Both genders felt that coaching was easier to motivate students to be physically active than in physical education and that coaching offered greater “job status” (p. 187) than did being a physical educator. Females however placed greater value on the importance of becoming a physical educator and therefore felt comfortable with sacrificing a higher job status.

In summary, empirical research has shown there are significant differences in the way male and female pre-service physical education teachers' perceived value of teaching skills and their perceived roles in the classroom. Empirical research (Ayers & Housner, 2008; McCormack, 1997) has also described male and female pre-service teachers' perspectives of and management of student misbehavior, teacher educators' understanding of biological and sociological identification of gender and their lack of understanding and use of pedagogical content knowledge. Research has helped us to better understand many of the concepts (Hardy, 1994) listed above and in doing so (Ayers & Housner, 2008; Kulinna, et al, 2006; Kulinna et al, 2003; Kirk, 1986) it has also provided suggestions for the betterment of PETE programs' approaches to preparing culturally-competent physical educators that respect and understand gender from a sociological standpoint. In doing so, self-efficacy of teaching is less likely to be determined by pre-service teachers' gender and alternatively, their pedagogical content knowledge and teaching skills. Therefore, qualitative analyses were employed to investigate PETE students' self-efficacy in utilizing their teaching skills, particularly the skills of (a) engaging students, (b) classroom management, and (c) instructional strategies.

CHAPTER III

METHODS

Purpose

The purpose of this study was to gain knowledge concerning the utilization of Self-Efficacy Theory in an undergraduate Physical Education Teacher Education (PETE) course specific to improving pre-service teachers' teaching skills and self-efficacy. How self-efficacy may be affected by pre-service instructors' perceptions of gender was also examined. This study examined the characteristics of the teacher education methods and their effectiveness on PETE students' teaching efficacy. A "mixed-methods" (Wiersma & Jurs, 2005) design, including both quantitative and qualitative methods (p. 274), was implemented. The study began by establishing a baseline of subjects' self-efficacy of teaching by administering the modified Teacher Sense of Efficacy Scale (TSES) (*See Appendix A*). Subjects then participated in nine weeks of the PETE course, "Teaching Educational Games". Upon completion of the subjects teaching experiences, the modified TSES was re-administered as a post-test of subjects' self-efficacy of teaching. Qualitative data sources included subjects' written lesson plan reflections, individual interviews, and a course evaluation. Three male and three female subjects were randomly selected for individual interviews. The following sections provide a profile of

the researcher and the participants, an in-depth description of the course, the design of the research study, and the data collection and analysis.

Profile of the Researcher

The researcher in this study was the course instructor and therefore his academic profile is provided for the purpose of recognizing his values on this research study. The course in which the participants were enrolled was “Teaching Educational Games”. The course instructor is a 30 year old white male and grew up in a rural community in the northeast United States. After graduating high school he received his bachelor’s degree in K-12 Health and Physical Education at Lock Haven University of Pennsylvania. While obtaining the bachelor’s degree he studied abroad at Liverpool Hope University College in Liverpool, England and performed part of his student-teaching experiences at a Jesuit school by the name of Saint Aloysius College in Glasgow, Scotland. He then taught pre-kindergarten through middle school Health and Physical Education at the New School Montessori Center in Apex, NC.

His teaching experiences both abroad and within the United States strongly influenced his interest in pursuing more knowledge about different cultures within subcultures of the United States. Therefore, he enrolled in several sociology-based and gender studies courses during his master’s in the Community Youth Sport Development program at the University of North Carolina at Greensboro. During this time he volunteered with community service programs which work with underserved youths from various subcultures of the Greensboro, NC community. These programs included the

Youth Leader Corps, Project Effort Sport Clubs, and the UNCG campus homeless shelter programs.

During his master's he taught activity courses including tennis, badminton, and bowling. Throughout his enrollment as a PhD student he taught several teacher education courses to undergraduate students majoring Pre-kindergarten Teaching, Child Development and Family Studies, Physical Education Teacher Education, and Community Youth Sport Development. The majority of these courses have been Physical Education Teacher Education consisting of: Sport Performance and Analysis, Teaching Education Games, Teaching Educational Gymnastics, and Student-teaching Practicum. The teacher education courses from students majoring in Pre-kindergarten Teaching, Child Development and Family Studies have consisted of: Teaching Pre-school Motor Skills and Teaching Elementary Physical Education. After the third year of pursuing his PhD, he taught preschool motor skills at a preschool in Carrboro, North Carolina.

Throughout all of his teaching experiences at the pre-kindergarten through university-level of teaching he was always fascinated with the psychosocial dynamics within education, physical education, sport, and physical activities. When teaching he attempted to better comprehend what psychosocial factors affected pre-service teachers' motivation and self-efficacy of teaching. The courses in which he was enrolled focused upon the social inequities and stereotypes about gender, and psychology in physical education, sport, and physical activity. Hence, his interest in pursuing more knowledge

about psychological and sociological pre-service teachers' self-efficacy of teaching has been a major emphasis on this research topic.

Physical Education Teacher Education Program Description

At a university in the southeast United States a kinesiology department has a Physical Education Teacher Education (PETE) program which offers K-12 teacher licensure in Physical Education. The students enrolled as academic majors in PETE are required to take 128 credits, consisting of course requirements within the department as well as general education credits in partial fulfillment of their academic degree. A minimum GPA of 2.5 is required in the program which is designed for students to graduate in four years. Students are required to complete student-teaching during both the Fall and Spring semester of their senior year. PETE majors are also given opportunities to observe, are encouraged to coach at public schools, and to volunteer with campus organizations that work with children, throughout their academic career. Students are also given opportunities and encouraged to work with children with special needs. All of these service-learning experiences are highly valuable in their development. However, the aim of this study was to examine the levels of pre-service teachers' self-efficacy as a result of participating in a course which provides clinical teaching experiences for the purpose of improving teaching ability and self-efficacy.

Participant Demographics

The subjects consisted of PETE students (N= 27) enrolled in the Teaching Educational Games course who voluntarily participated in this study. The year of academic enrollment varied amongst the participants, ranging from freshman to senior.

None of the participants had begun their in-service teaching experiences, nor had any prior in-service teaching experiences. Some of the participants had prior service-learning experiences which consisted in voluntary service to local communities in physical activity settings such as assistant coach of sports. A more detailed breakdown of the subjects can be found below in Table 1.

Table 1: Participant Demographics

<u>Demographics and percentages</u>	<u>N</u>	<u>%</u>
<u>Gender</u>		
Males	10	73
Females	7	37
<u>Academic Year</u>		
Freshman	5	19
Sophomore	3	11
Junior	14	51
Senior	5	19
<u>Teaching Experiences</u>		
None	19	69
Service Learning	8	31

Teaching Educational Games

Course Outline

The course “Teaching Educational Games” ran for 15 weeks during which time the pre-service teachers constructed and taught educational games to the local home school community. The course met twice a week, Mondays and Wednesdays, with each session lasting 75 minutes. During the first five weeks of the course, lectures, in-class activities, homework, and quizzes were given which provided the students with a basis of understanding of the content knowledge focused upon in the course. Weeks six through

14 consisted of the pre-service teachers working collaboratively with “Team” members on Mondays to construct lessons which they would teach on Wednesdays. The final week consisted of activities designed to have students individually and with peers reflect throughout the semester upon their teaching experiences.

During weeks six through fourteen, the duration of the pre-service teachers’ individual teaching experiences increased as the semester progressed. In all instances when there were group members that were not teaching these PETE students were positioned outside the teaching area and completed the “Peer Evaluation” (see Appendix E) form while observing their peers teach. For example, during the first week of teaching, the pre-service teachers’ co-taught for 30 minutes of the lesson while the remaining teachers observed his or her peers’ teaching. During the second and third weeks of teaching, each group member taught for 15 minutes of the lesson. The fourth and fifth weeks of teaching consisted of three group members each teaching individually for 20 minutes. The final four weeks of teaching consisted of two pre-service teachers completing 30 minutes of individual teaching. All pre-service teachers experienced the same number and duration of teaching experiences as well as peer observations. There were a total of 36 children from the local home school community that participated in the lessons throughout the nine weeks of Teaching Educational Games. These children were assigned to one “home school group” in which they remained for the duration of their experiences in educational games.

The Skill Theme Approach

The main learning objectives in “Teaching Educational Games” were to improve pre-service teachers’ content knowledge, teaching skills, and self-efficacy of teaching. The term “Games” in the course title was used broadly with the conception that “skill themes” can be taught via using many different movement tasks, activities, and games. As defined by Graham, Holt/Hale, and Parker (2007) “Skill themes are fundamental movements that form the foundation of success in sports and physical activities in later years” (p. 17). The “Skill Theme Approach” (Graham, et al, 2007) was selected as a teaching model for this course due to its ability to help physical educators develop and modify movement tasks so that the tasks may be developmentally appropriate for the learner. In addition, implementation of the skill theme approach was essential to this particular class because of the great diversity of motor skill ability and ages of the children from the home school community which ranged from elementary to middle school. The skill themes consisted of: traveling, chasing, fleeing, and dodging, jumping and landing, balancing, transferring weight and rolling, kicking and punting, throwing and catching, volleying and dribbling, striking with rackets and paddles, and striking with long-handled implements.

Throughout the remainder of the clinical teaching experiences, the pre-service teachers learned to design tasks that were developmentally appropriate for all the children from the “home-school” community. Designing developmentally appropriate activities was done by first determining the children’s “Generic Level of Skill Proficiency” (GLSP) (Stanley, 1977). The GLSP is a classification system of motor skill ability used to

identify an individual or group of individuals as having. By order of least to most developed, the levels are listed as follows: pre-control, control, utilization, proficiency. Every individual has varying GLSP's for each movement skill and motor ability is not uniform across all skills.

“Movement concepts” are defined by (Graham, Holt/Hale, and Parker, 2007) as ideas that “describe how a skill is to be performed” (p. 30) and are used to modify the complexity of skills. The purposing of changing the complexity of a skill is making the task developmentally appropriate for the child. An example of a movement concept is “directions”, which include “up/down”, “forward/backward”, “right/left”, and “clockwise/counterclockwise” (p. 29). Another example of movement concept is “levels” which include “low/middle/high”. For instance, a teacher might use the movement concept of “time” which consists of “fast/slow” (p. 29) to make the skill of “dribbling” more or less complex based on the developmental ability of a child. If the child demonstrates a GLSP of dribbling at the “control” level, the physical educator could ask the child to “walk fast” while dribbling, rather than “walk slow”. Likewise another child at the “pre-control” GLSP might struggle to walk fast or even walk slow while dribbling. Therefore, the physical educator could have the child work on dribbling in a stationary position.

These scenarios exemplify how to use movement concepts to change the skill theme so the movement task will be developmentally appropriate to that child's GLSP. By the time the home school community arrived to the university on week six, the pre-service teachers used the first five weeks to construct lesson plans using the skill theme

approach and had opportunity to micro-teach these lessons to their peers. Role playing each GLSP was often exercised during micro-teaching to help the pre-service teachers practice using movement concepts to make the movement tasks developmentally appropriate.

Educational Games Program for Home School Community

On Wednesdays, home school parents arrived with their children a few minutes prior to the start of the class and were welcome to stay and observe their children's participation. On Mondays the pre-service teachers practiced performing the motor skills they taught in their lesson plans on Wednesdays. Students were encouraged to meet with their group members and the course instructor outside of class to revise and improve their lesson plans. Lessons opened with a 10 minute "instant activity" to warm-up the children's muscles prior to their five minute stretches and exercises. These instant activities were taught by one of the pre-service teachers on that "team". The instant activities often focused on skill themes which were then used throughout that lesson. Instant activities were meant to utilize the children's excitement and energy upon entering the gymnasium in addition to establishing a routine. Instant activities were also practiced for the purpose of improving the efficiency of the lesson in that they helped limit time spent on activity-transition and behavioral management.

The children were placed into six groups: each group consisting of five PETE students. The skill themes-based games portion of the lesson consisted of developmentally-appropriate activities based on NASPE standards and were broken up into three phases, with the overall goal of helping children progress over the nine weeks

from: “pre-control”, “control”, “utilization”, to “proficiency” (Graham, Holt-Hale, & Parker, 2004). The final portion of the lesson involved cool-down and stretching. The entire games lesson was divided into five parts, with each of the PETE students’ teaching one of the parts of the lesson each week. Each lesson segment was rotated throughout the semester so that each pre-service teacher would gain multiple teaching experiences in each segment of the lesson. At the end of each lesson, the PETE students were asked to briefly discuss in their written “reflection” and with the entire class, which part of their teaching experience they found most salient and why.

Self-Efficacy Theory in Teaching Educational Games

Self-Efficacy Theory was used as a guideline for making the course Teaching Educational Games specific to improving pre-service instructors’ self-efficacy. Along with specific content, the course was designed to harness the three most influential factors on increasing an individual’s self-efficacy: performance accomplishments, vicarious experiences, and verbal persuasion. Throughout these experiences self and peer-reflection was done to bolster the impact that their performance accomplishments, vicarious experiences, and verbal persuasion throughout the semester had on self-efficacy development.

There were several “Reflection” activities teaching throughout the semester which consisted of the written “Lesson Plan Reflections” (*See Appendix D*) and in-class “reflection discussions” so the pre-service teachers could gain feedback from their students, peers, and the course instructor. These reflection discussions took place on the days students worked with the home school children and the pre-service teachers

discussed events they found most salient. During this time the students were then encouraged to elaborate on their own and peers' effectiveness of student engagement, classroom management, and instructional strategies. The pre-service teachers expressed their performance accomplishments when teaching, their vicarious experiences, and were also verbally persuaded and encouraged by their peers and the course instructor in striving to improve and better their teaching ability.

Performance Accomplishments

Prior to the start of the course, the goal was to stay consistent with Self-Efficacy Theory, by providing the pre-service teachers with clinical teaching experiences in which they would experience “performance accomplishments”, which are considered the most influential factor in improving self-efficacy (Bandura, 1997). The course was structured so that each pre-service teacher would partake in teaching nine physical education lessons to elementary and middle school age children. There were several opportunities for the pre-service teachers to accomplish their teaching objectives and to be cognizant of such.

Students had the first five weeks of class to learn and practice using the skill theme approach to make the activities developmentally appropriate for the children. They observed videos in class of children performing various skill themes at different Generic Levels of Skill Proficiency (GLSP) and had time to practice assessing their GLSP. They also were asked in quizzes, in-class activities and discussions, and homework assignments to correctly label a child's GLSP based on the descriptions provided. Individually, with peers, and with the guidance of the course instructor, they then practiced modifying the skill via using movement concepts to make it

developmentally appropriate. In doing so, they had a high likelihood of experiencing several “performance accomplishments” when applying these teaching skills with the elementary and middle school children in the Educational Games Program for the home school community.

By recognizing the children’s GLSP’s after having consistently observed their motor skill performance, and with the guidance of the course instructor, the pre-service teachers were believed to have a high probability of becoming more confident throughout the semester in his or her ability to prepare a lesson that will be developmentally appropriate. As time went on, the goal was to help them also feel more competent at addressing situations where the activities did not go as planned. Lessons were reconstructed, with the course instructor’s guidance, to have pre-planned modifications to activities available, in the event that these may be needed. An example is to engage students by using instructional strategies to modifying activities to be developmentally appropriate. The course instructor’s objective was that although the activity may have been designed at the “control level” the pre-service teacher would begin to recognize when a child or children within the lesson might need the activity to be modified. As stated earlier, this can be done via referring to movement concepts that correspond to the children’s developmental level. In this case, it would most likely be either the “pre-control” or “utilization level”.

The course was designed so that the students would also experience many performance accomplishments at other teaching skills since teaching skills are often inter-related. An example of such was when the pre-service teachers used the

“instructional strategy” of establishing a routine for children entering the gymnasium to minimize the need for “classroom management”. It was believed that the more the pre-service teachers experience “performance accomplishments” in teaching, the more probable it would be for their self-efficacy of teaching to improve.

Vicarious Experiences

Students were also given the opportunity to observe peers teach the children during which time they completed a “Peer Evaluation” (*See Appendix E*) so they could learn how to have a structured approach to evaluating teaching effectiveness. The peer evaluation asked students to observe their peers’ effectiveness of three different teaching skills: “Student Engagement”, “Classroom Management”, and “Instructional Strategies”. For example, when evaluating that peers’ effectiveness at using “Instructional Strategies” they identified on the Peer Evaluation whether or not “activities were developmentally appropriate”, “activities were modified to be appropriate”, or “activities remained inappropriate”. They were then asked to elaborate on such in the “Comments” section. The students then used the information gathered from their peer evaluation to assist them in completing the portion of their “Lesson Plan Reflection” which asked them to discuss their peers’ performance for that teaching skill.

Since every pre-service teacher partook in all nine sessions with the home school children they often observed their peers successfully perform various teaching skills. In observing peer success, it was hoped that their self-efficacy would become stronger over time. One additional benefit of having the students work in “teams” throughout the semester was that they were more likely to identify with their peers. They worked

together as a team each week in constructing each portion of the lesson. Certainly, there were instances when pre-service teachers observed their peers unsuccessfully teach children during the lessons. This vicarious experience may have had an adverse effect on the observer's self-efficacy.

However, during the clinical teaching, the pre-service teachers were under constant surveillance by the course instructor. Notes were taken by the course instructor who evaluated each team's teaching methods and effectiveness. Upon completion of the clinical teaching experience the group discussions were utilized by the course instructor to provide specific feedback to each group regarding their teaching. This consisted of detailed explanations which discussed why the learning objectives were not met and what methods the pre-service teachers could use in the future which will help them to be more successful. As the courses progressed, the pre-service teachers were encouraged to use these methods in teaching the children, with the notion that this would lead to positive results and henceforth improved self-efficacy. Both the course instructor and the peers provided encouragement during this time. Ultimately, peers' and course instructor's "verbal persuasion" were also likely to boost self-efficacy amongst the pre-service teachers.

Verbal Persuasion and Verbal Feedback

Verbal feedback was also a major part of the Teaching Educational Games course. This occurred most frequently during group discussions prior to, and even more so after each teaching experience. During the group discussion each student reflected on his or her own successes as well as comments on their peers' successes. Students also

discussed areas of improvement for the self and peers. Suggestions for improving activities and teaching methods were provided by peers and the course instructor. This form of constructive criticism allowed the pre-service teachers to discover the importance of reflective teaching. In addition to the course instructor, the students verbally persuaded one another as to how they can continue making progress in their teaching ability. Verbal persuasion also occurred earlier in the semester upon completion of each student's micro-teaching experience where the course instructor and the students provided verbal encouragement and constructive feedback on their peers' teaching performance. In addition to the reflections throughout the semester, the final week served as a period of time in which students and the course instructor had open discussions on these teaching experiences. One purpose of these discussions was to encourage the pre-service teachers to apply the knowledge and skills acquired in the Educational Games course to their future teaching.

There were times when parents that observed the program provided the course instructor with feedback on their children's and the pre-service teachers' performance that day. Although this was not required of parents, this occurred naturally via email and at the end of each lesson. The course instructor also relayed this information on to the pre-service teachers as a form of verbal persuasion and encouragement. In addition to the self, peers, course instructor, and parents, the children involved in the activity often provided the teachers with feedback on what activities they enjoyed and the successes they achieved in the movement tasks. Upon completion of the group discussions, students wrote their lesson plan reflections, which they then submitted online at the

course blackboard website. Students were required to read each other's descriptions of their performance accomplishments and in this process, written feedback was provided. On the following Monday, the course instructor provided a summary of all reflections from the previous teaching experiences, and verbally encouraged the pre-service teachers that they could improve their next lesson consisting of the new skill themes for that upcoming Wednesday.

Instrumentation

This study focused on a Physical Education Teacher Education (PETE) course through the theoretical lens of Self-Efficacy Theory (Bandura, 1977). All data sources in this study were related to Self-Efficacy Theory. These sources included a modified Teacher Sense of Efficacy Scale (TSES), written lesson plan reflections, course evaluations, and a Teacher Efficacy Interview Guide (TEIG).

Teacher Sense of Efficacy Scale

The dependent variable, "teaching efficacy" was measured using a modified version of the Teacher Sense of Efficacy Scale (TSES) (Tschannen-Moran, Woolfolk, & Hoy, (2001). The TSES is a quantitative measure which addressed the first research question: "What are pre-service teachers' levels of self-efficacy prior to and after their clinical teaching experiences in a PETE course specifically-designed to improve self-efficacy and teaching ability via experiencing "performance accomplishments", "vicarious experiences", and "verbal persuasions"? There are two original versions of the TSES: the "Long Form" and the "Short Form". The Long Form consists of 24 items asking the subjects to rate on a 9 point Likert-scale "How much can you do?" to

successfully use the teaching skill stated in that item. There are three skills individually dispersed in different items throughout the questionnaire. These skills are student engagement, classroom management, and instructional strategies.

The short version of the TSES asks subjects to rate their level of self-efficacy on a 9 point Likert Scale. The Likert-scale ranges from the lowest level of teaching efficacy, number “1”, to the highest level of teaching efficacy, number “9”. The odd numbers on the scale provide corresponding descriptions of the subjects’ self-efficacy of teaching: “*nothing*”, “*very little*”, “*uncertain*”, “*some things*”, to “*a great deal*”. The even numbers in the Likert Scale do not have a corresponding description as do the odd numbers. The same three teaching skills, each of which is addressed in different items throughout the questionnaire are also used in the Short Form TSES. The short form consists of 12 items and also asks the subject to rate “How much can you do?” on the same nine point Likert-scale. The TSES was originally used in research in our parent discipline: teacher education. It was later modified by the researcher in this study during a pilot study conducted to focus specifically on Physical Education Teacher Education (PETE).

The modified version of the TSES which was first used in the pilot study is also comprised of 12 items but asks subjects to rate their level of self-efficacy on a five point Likert Scale. Only the five numbers which have corresponding descriptors: “*nothing*”, “*very little*”, “*uncertain*”, “*some things*”, to “*a great deal*”, are used. Therefore subjects were asked to select a specific descriptor directly corresponding with their level of teaching efficacy. The original Short Version of the TSES relates to a classroom setting, while the modified version is tailored to physical education. For example, the original

Short Version of the TSES asks: “How much can you do to control disruptive behavior in the classroom?”, while the modified TSES asks: “How much can you do to control disruptive behavior in the gymnasium?” The modified TSES thereby served as a pre-test and a post-test of subjects “teaching efficacy” with the subjects’ clinical teaching experiences serving as the dependent variable. The pre-test reliability of items and subscales were tested using Cronbach alpha (1951).

Development of the TSES was derived from several different studies (Armor et al., 1976; Brookover et al., 1978; Gibson & Dembo, 1984; Guskey, 1981, 1982, 1988; Rose & Medway, 1981; Ashton et al., 1982, 1984; Meijer and Foster, 1988; Midgley et al., 1989; Newmann, Rutter, & Smith, 1989; Emmer, 1990; Emmer and Hickman, 1990; Riggs & Enochs, 1990; Woolfolk & Hoy, 1990; Lee, Dedick, & Smith, 1991; Raudenbush, et al., 1992; Soodak & Podell, 1993; Guskey & Passaro, 1994; Coladarci & Fink, 1995; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). The wording, number, and dispersal of questions, range of points on the scale, and addition and elimination of questions, were all revised to ensure construct validity and reliability of the TSES.

Megan Tschannen-Moran and Anita Hoy (2001) conducted a comprehensive study, which examined reliability and validity data on the TSES. The researchers discuss in great depth the evolution of the instrument and suggest two final products to be used in future studies of teacher efficacy. After conducting a principle axis factor analysis (Tschannen-Moran & Hoy, 2001), the final reliabilities of a TSES long form (24 items) and a TSES short form (12 items) were “.94” and “.90”, respectively (p. 801). The researchers then compared the results of their study using both the long form and the

short form to the reliability scores of the TSES instruments used in previous studies (Hoy & Woolfolk, 1993; Willower, et al., 1967; Forsyth & Hoy, 1978). Results showed that the items TSES were positively related ($r = .35$, and 0.38 , $p < .01$) and the total scores in the TSES were positively related ($r = 0.48$, $p < .01$) to the Hoy and Woolfolk (1993) study and positively related ($r = 0.30$, $p < .01$) to the Willower, et al. (1967) and Forsyth and Hoy (1978) studies.

Since all subjects experienced the same treatment: nine weeks of clinical teaching experiences in a course specifically-designed to improve teaching skills and self-efficacy of teaching, this study is presumed to have strong internal validity. Also, none of these subjects had yet entered their student-teaching experiences. However, some of the subjects entered this course with prior experiences working with children in sport and service-learning settings. This information was gathered after the subjects completed the “Participant Demographic Questionnaire”. Experiences in settings such as assisting with coaching sports share similarities with physical education in that they both work with children in a physical activity learning environment. Checking for differences between those subjects with outside service-learning experiences and subjects with no prior outside experiences was done by comparing scores between both groups on the pre-test. No significant differences were found that may have affected the internal validity of the study. This was not problematic since that information was used to test for differences between groups over time. Based on the post-test results, it can be safe to conclude that these were the outcomes of the clinical teaching experiences in the Teaching Educational Games course.

The external validity, or generalizability (Wiersma & Jurs, 2005) of the findings of this study are most likely limited to the population of subjects within the study and the undergraduate PETE majors in that program at the university. This is due to the many unique features of the Teaching Educational Games course. Therefore, the modified TSES observed the levels of subjects' teaching efficacy in this study, and the findings are not to be generalized to populations of pre-service PETE students at other universities. However, these findings are valuable in providing more knowledge concerning Self-Efficacy Theory in teacher education.

Qualitative Data Sources

The lesson plan reflections, course evaluations, and interviews with males and females were qualitative data sources utilized to address research question 2: "How do "performance accomplishments", "vicarious experiences", and "verbal persuasions" affect pre-service teachers' self-efficacy?" These data were also used to address research question 3: "How are males' and females' perceptions of teaching impacted during their early clinical teaching experiences?"

Lesson Plan Reflections

Lesson plan reflections were used to answer research questions two and three. Lesson reflections asked the subjects to discuss their perceptions of their own and their peers' effectiveness of: (a) student engagement, (b) classroom management, (c) instructional strategies, and (d) anything else they felt was important that happened during the lesson. For questions pertaining to "student engagement", the students were asked to: "Describe what you did to engage students in the activities during the lesson".

They were also asked “What did you see your peers do to engage students?” By asking subjects to reflect on their own and their peers’ teaching, the examination of the affects of constructs within Self-Efficacy Theory: “Performance accomplishments” and “vicarious experiences” (Bandura, 1997) on subjects’ teaching efficacy was made possible.

Specifically, when a subject describes his or her perceived performance accomplishments, or perceived lack thereof, descriptive information on “how” subjects teaching efficacy is affected was provided.

The fourth question on the lesson plan reflection asks the subject to “discuss anything in your teaching experiences that affects your beliefs about your teaching ability.” This open-ended question allowed the researcher the opportunity to examine other possible factors affecting teaching efficacy during clinical teaching experiences. Therefore, as stated earlier, the modified TSES measured “what” levels of teaching efficacy the subjects have as a whole and on each subscale. The lesson plan reflections expanded upon the quantitative data by answering “how” the subjects’ teaching efficacy is affected by the three constructs in Self-Efficacy Theory: performance accomplishments, vicarious experiences, and verbal persuasions. The fourth reflection informs what factors other than the three constructs may have affected self-efficacy of teaching.

Based on what the students reflected upon, a detailed image of what their teaching efficacies are, as well as what affected such was depicted. Students were required to complete their written reflections immediately after every teaching experience. This constant representation of factors affecting their efficacy was highly valuable, especially

when the subjects were asked to discuss their own performance accomplishments as well as what they observed in their peers' teaching. All students agreed to participate in this study, therefore all lesson plans were used as sources of qualitative data.

Course Evaluations

Seeing that this study employed a mixed-methods approach, the course evaluation was both a quantitative and qualitative data source. The course evaluation is a 12-item questionnaire that was designed to help enrich the quantitative data while it also included additional open-ended questions that shed more light on subjects' efficacy of their teaching skills. Questions one through eight asked subjects to rate on a three point Likert Scale, how much this course helped improve their teaching efficacy within various teaching skills. The Likert-scale ranges from the lowest level of teaching efficacy, number "1", to the highest level of teaching efficacy, number "3". Each of the three points had a corresponding descriptor: "Not at all", "some", or "a lot", respectively.

The skills subjects were asked to rate and discuss on questions one through three how helpful the course was in improving their ability to utilize the following teaching skills: "student engagement", "classroom management", and use of "instructional strategies", all of which are consistent with the TEIG and modified TSES. Questions four through seven invited an examination of teaching skills upon which a strong emphasis was placed in the Teaching Educational Games course. These questions asked subjects to rate and discuss how much this course helped to "accurately assess children's motor performance", "learn to effectively teach motor skills, effectively teach cognitive skills", and "effectively teach affective skills". Question eight asked subjects to rate and

discuss how much this course helped “improve your overall teaching ability”. To initiate a thoughtful elaboration to the rating subjects gave to each question item, they were also asked to discuss “Why” they rated the item as such and were asked “What would you suggest for this course in the future?”

Question nine asked subjects to rate and discuss what their confidence was before and after having taken the course and how much the course changed their confidence in teaching. Question 10 asked subjects to “List the three most important things you got from this course”, while question 11 asked subjects to provide any suggestions for how the course could improve their teaching ability. The final question was open-ended and asked subjects to discuss anything else about the course that they felt was important.

Interviews

The interviews were guided by an instrument, the Teacher Efficacy Interview Guide (TEIG) (*See Appendix C*) which examined subjects’ teaching efficacy and was used to address research question two and research question three. As is the case with the lesson plan reflections and the course evaluation, the purpose of conducting interviews was to enrich the results from the quantitative data, thus providing explanations for these results. The TEIG consists of eight questions each of which asks subjects to discuss particular aspects of their experiences throughout the semester in the Teaching Educational Games course.

The first question is open-ended and allowed the subject to “Please tell me about your teaching experiences in the “Teaching Education Games” course. The TEIG was constructed to be consistent with the content on the original TSES. In the original TSES

subjects are asked to assign numeric values to identify their levels of self-efficacy on the TSES, whereas the TEIG asks subjects to verbally elaborate on their efficacy within each of these teaching skills. Therefore the three subscales or skills: “student engagement”, “classroom management”, and “instructional strategies”, were part of the TEIG. Questions two through seven ask subjects to describe their own effectiveness and peers’ effectiveness at utilizing each of these skills. For example, question two asks subjects, “Describe what you do to engage students?” and question three asks subjects to “Describe what your peers do to engage students? The TEIG concludes with the eighth question asking subjects “Is there anything you would like to discuss about how confident you feel in your teaching skills after taking this course?” Every item within the TEIG contains “probes” used to initiate an in-depth interview. For example, when the subjects were asked to “Describe what you do to engage students?” the probes: “Do you feel you are successful at getting students involved with the lessons”, “Why/why not?”, and “Can you give an example?” are available for the interviewer to instigate a thorough discussion.

Procedure for Data Collection

Data collection took place during the Fall of 2010. All data gathered from participant resources were collected with explicit permission from the participants and in full compliance with the University’s Institutional Review Board (IRB) guidelines. The instruments in this study were both quantitative and qualitative and were piloted during the spring semester of 2010. The pilot study also received the University’s IRB approval. The candidate population was students enrolled in “Teaching Educational Games”

course. To avoid any issues of coercion, students were informed by an individual other than the researcher that participation was strictly voluntary and their grade would not be affected in any way whether they chose to participate in the study.

After obtaining IRB approval, the pre-test of the modified TSES was administered. The purpose being was to measure the participants' self-efficacy prior to their first clinical teaching experience in this study. Laura Davis, the Kinesiology Department Office Manager and Administrative Supervisor, met with the students to obtain informed and written consent, and administered and collected the "Subject Demographic Questionnaire" and "Teacher Sense of Efficacy Scale". Laura informed the subjects on every section of the "Consent to Act as a Human Participant" form, which explains that participation in the study was completely voluntary, confidential, would have no effect on their grade in the course.

After each teaching experience, all students completed their written lesson Plan Reflection and posted it on the university blackboard course webpage. A discussion board thread for each lesson plan was created which allowed each student to post their completed lesson plan with its reflection. At the end of the semester the lesson plan reflections were printed, compiled, and then organized into folders which separated the males' and the females' lesson plan reflections. As for the "Teacher Sense of Efficacy Scale" and the "Course Evaluation" it was ideal to administer these on the day following the subjects' final teaching experience. The rationale was that the closer to the teaching experience, the more accurately the post-test would measure subjects' self-efficacy.

Additionally, the course evaluations would allow the participants to describe their self-efficacy and discuss their experiences in the course which they found most salient.

Individual interviews were administered directly after subjects completed their nine weeks of teaching which allowed a feasible window of time to ensure that all interviews could be completed prior to the end of the semester. A graduate student, Elizabeth Lange, who was enrolled as an EdD Candidate in “Outdoor Recreation” at the University of North Carolina at Greensboro was selected to conduct the interviews. Elizabeth was trained to use the Teacher Efficacy Interview Guide (TEIG) (*See Appendix C*) to conduct the interviews. The purpose of having the same individual conduct both interviews was to ensure that questions and discussions were performed in the same way and so that subjects would be less likely to respond differently if there were two different interviewers. In order to ascertain credibility of the interviews, an audio-recording device was employed for interviews which were later transcribed. The interviews included six randomly-selected subjects, three males and three females, none of which were in the same teaching group. Interviews were conducted sequentially in the privacy of the interviewer’s office with each session lasting approximately 30 minutes.

Data Analysis

Research Question 1: What are pre-service teachers’ levels of self-efficacy prior to and after their clinical teaching experiences in a PETE course specifically-designed to improve self-efficacy and teaching ability via experiencing “performance accomplishments”, “vicarious experiences”, and “verbal persuasions”?

A preliminary analysis was conducted to check for differences between genders prior to their clinical teaching experiences. The purpose of doing so was to establish a baseline as to whether or not the treatment had equal effects on either gender. Additionally, this made possible the future analysis of any changes over time on the entire subject population as well as any differences between genders. A 2 x 2 repeated measures ANOVA was utilized to compare statistical differences between male and female subjects' teaching efficacy over time. Scores were compared on a confidence interval of .05 to determine whether or not there was a significant gender and time difference in subjects' self-efficacy.

Research Question 2: How do “performance accomplishments”, “vicarious experiences”, and “verbal persuasions” affect pre-service teachers' self-efficacy?

Research Question 3: How are males' and females' perceptions of teaching impacted during their early clinical teaching experiences?

Once all interviews and course evaluations were transcribed and the lesson plan reflections were printed off of the course blackboard website, an initial review of the raw data began. Two separate individuals, the researcher and the interviewer, examined the reflections and interviews and selected quotes which were relevant to the research questions. These quotes were printed off, labeled, and organized on separate sheets of paper. To ensure confidentiality and avoid any bias effects, subjects were given pseudonyms.

The next step taken was the revisiting of the theoretical framework of the study. The qualitative data in this study was interpreted using “constant comparison” and “a

priori” coding (Wiersma & Jurs, p. 207-209) since it was viewed through the theoretical lens (Marshall & Rossman, 2006) of “Self-Efficacy Theory” (Bandura, 1986). When using a priori coding, both individuals checked for instances where subjects’ discussed any constructs within Self-Efficacy Theory. The researcher and the interviewer began by identifying when the three constructs: “performance accomplishments”, “vicarious experiences”, and “verbal persuasion” within Self-Efficacy Theory emerged during the initial coding. For example, if subjects discussed how they successfully managed to actively engage the entire class, this would be coded as “performance accomplishments” and “student engagement”. As the third research question relates to gender, similarities within and across genders was recorded when coding data. To ensure inter-rater reliability, after the coding of data both the researcher and the interviewer reviewed and revised the codes that were assigned to quotes as well as to what new themes emerged (Strauss, 1987). This process continued until data became “saturated” (Creswell, 2007). Since three females and three males were interviewed, 40% of the female population and 24% of the male population was represented.

In the course evaluation subjects were asked to answer “why” they rated their answer to the question, “How much did this course help you to...” as “not at all”, “some”, or “A lot”. The researcher’s approach to coding the course evaluations was the same as that used when coding the lesson plans and interviews. Words and statements from the course evaluations, lesson plan reflections, and interviews which characterized a particular code were identified and labeled. For example certain identifiers of the code

“modify” were: “modify”, “adjust”, or “change” followed by “tasks”, “activities”, “challenge”, or “games”.

A priori coding through the theoretical lens of Self-Efficacy Theory was also used in the course evaluations. For example the code “performance accomplishments”, which is a factor affecting self-efficacy was often identified with the phrases “I learned how to”, or “I was”, which was typically followed by adjectives: “successful”, “competent”, or “able”, or the verbs: “could” or “can”. Throughout this process the two data coders repetitively reviewed the data, and then met with each other to revise identifiers until saturation of data was reached.

CHAPTER IV

RESULTS

This chapter begins by providing results of research question one which was addressed by quantitative measures of subjects' self-efficacy before and after their clinical teaching experiences. Reliability of the modified Teacher-Sense of Efficacy Scale (TSES) overall measure of efficacy is presented. Significances of differences over time within and between genders are presented. The next provision of results is that of the qualitative data: interviews, lesson plan reflections, and course evaluations. Emerging themes within Self-Efficacy Theory (Bandura, 1986) as well as additional themes regarding subjects' perceptions of their teaching effectiveness are presented. The procedures for establishing inter-rater reliability are provided.

Reliability of the Modified Teacher Sense of Efficacy Scale

When measuring the reliability of the TSES of the pre-test and post-test scores, Cronbach alpha was set at .70 (1951). The reliability of the pre-test was .716 and the reliability of the post-test was .641. Previous research (Tschannen-Moran & Hoy, 2001) has shown, the subscales in the short version of the TSES are typically not reliable therefore they were not included in this study. Rather, the interpretation of the results of the overall TSES is sound since it was shown to have a reliability of .716.

Pre-Test Equivalencies of Self-Efficacy

A one-way ANOVA was used to check for differences between genders prior to their clinical teaching experiences. A breakdown of the results can be found in Table 2. Analysis of data showed that there was no significant difference ($p > .05$) between the females ($M= 53.70$, $SD= 2.91$) and the males ($M= 53.29$, $SD= 4.30$) when pre-tested on their self-efficacy. When measuring self-efficacy of teaching, pre-test scores in the females ranged from 49 to 58 (9 points) while the males' efficacy scores ranged from 46 to 59 (13 points).

Table 2: Pre-Test Equivalencies of Self-Efficacy.

Scores	M	S.D.	F	S
<u>Overall</u>				
Females	53.70	2.91		
Males	53.29	4.30		
Total	53.44	3.79	.070	794

Self-Efficacy over Time

There was a significant difference ($p < .05$) over time between the pre-test ($M= 53.44$, $SD= 3.79$) and post-test ($M= 56.04$, $SD= 2.65$) measures of self-efficacy. Pre-test scores ranged from 46 to 59 (13 points) and post-test scores ranged from 50 to 60 (10 points). A summary of all subjects' scores is located in Table 3.

Table 3: Self-Efficacy over Time.

Scores and Improvement	M	S.D.	F	S
<u>Overall</u>				
Pre-test	53.44	3.79		
Post-test	56.04	2.65		
Total	54.74	3.49	8.87	.006

Post-Test Gender Differences

Analysis of data showed that there was no significant difference ($p > .05$) between the females ($M=55.30$, $SD= 2.63$) and the males ($M= 56.47$, $SD= 2.65$) in their self-efficacy. Females' and males' self-efficacy scores both ranged from 16 to 20 (4 points). No significant interaction effect ($p < .000$) was found between genders' self-efficacy. A summary of females' and males' self-efficacy scores is located in Table 4.

Table 4: Post-Test Gender Differences.

Scores and Improvement	M	S.D.	F	S
<u>Overall</u>				
Females	55.30	2.63		
Males	56.47	2.65		
Total	56.04	2.65	.134	.717

Course Evaluations

Four students, one female and three males opted not to take the course evaluation. As stated in the "Procedure for Data Collection", IRB protocol did not require subjects to participate in any part of this study. The Course Evaluation was administered after the final day of class and the data collector; Laura Davis reported that these four subjects were not interested in completing the Course Evaluation. These subjects were not participants of the individual interviews. There was a significant difference ($p < .05$)

between females (M= 2.44, SD= .53) and males (M= 2.86, SD= .36) in how much they felt the course helped to improve their ability to engage students in learning activities.

There was also a significant difference ($p < .05$) between females (M= 2.56, SD= .52) and males (M= 2.93, SD= .27) in how much they felt the course helped to improve their overall teaching ability. All other measurements of differences between females and females were non-significant. A breakdown of the results can be found in Table 5.

Table 5: Course Evaluations.

Scores and Improvement	M	S.D.	F	S
<u>Engagement</u>				
Females	2.44	.53		
Males	2.86	.36		
Total	2.70	.47	4.98	.037
<u>Management</u>				
Females	2.22	.67		
Males	2.43	.51		
Total	2.35	.57	.701	.412
<u>Instructional strategies</u>				
Females	2.67	.71		
Males	2.86	.36		
Total	2.78	.52	.730	.402
<u>Assess motor performance</u>				
Females	2.33	.50		
Males	2.64	.50		
Total	2.52	.51	2.114	1.61
<u>Teach Motor</u>				
Females	2.33	.50		
Males	2.71	.47		
Total	2.57	.51	3.437	.078
<u>Teach Cognitive</u>				
Females	2.11	.60		
Males	2.50	.52		
Total	2.35	.57	2.723	.114
<u>Affective</u>				
Females	2.11	.61		
Males	2.57	.51		
Total	2.39	.58	3.859	.063

<u>Overall Teach</u>				
Females	2.56	.52		
Males	2.93	.27		
Total	2.78	.42	5.080	.035
<u>Confidence before course</u>				
Females	1.78	.67		
Males	1.79	.58		
Total	1.78	.60	.001	.976
<u>Confidence after course</u>				
Females	2.67	.50		
Males	2.71	.47		
Total	2.70	.47	.054	.819

Research Questions Two and Three

Individual interviews, course evaluations, and lesson plan reflections were used to address research question two and research question three. Research question two asked “How do “performance accomplishments”, “vicarious experiences”, and “verbal persuasions” affect pre-service teachers’ self-efficacy?” and research question three asked “How are males’ and females’ perceptions of teaching impacted during their early clinical teaching experiences?” First, results are presented from the three male and three female subjects that were interviewed. A profile of the interviewee is provided followed by any changes in subjects’ efficacy of the teaching skills: “student engagement”, “classroom management”, or “instructional strategies”. The specific constructs within Self-Efficacy Theory (Bandura, 1997): “performance accomplishments” and “vicarious experiences”, effecting self-efficacy of any of the subscales are presented. Finally, any additional themes which emerged are presented. After the individual interviews, the results from the course evaluations and lesson plan reflections are provided.

A profile of the interviewee is given followed by a description of the occurrences of “performance accomplishments” and “vicarious experiences”, which are constructs within Self-Efficacy Theory (Bandura, 1997). The description of any changes within each of these constructs will specifically address the subjects’ “student engagement”, “classroom management”, or “instructional strategies.” It is important to note that while “performance accomplishments” and “vicarious experiences” were demonstrable in every interview, changes in subjects’ self-efficacy of “student engagement”, “classroom management”, or “instructional strategies” did not occur within every construct. Therefore, only those that did occur are provided. Finally, any additional themes which emerged beyond the a priori contrasts (Wiersma & Jurs, p. 207-209) are presented. After the individual interviews, the results from the course evaluations and lesson plan reflections are provided.

Individual Interviews

Considering that the qualitative data in this study were initially observed through the theoretical lens of Self-Efficacy Theory, a priori contrasts were readily apparent in the interviews. Prior to the analysis of the data, “performance accomplishments”, “vicarious experiences” and “verbal persuasions” were hypothesized as being the most significant influential factors on subjects’ self-efficacy. While “performance accomplishments” and “vicarious experiences” were the utmost contributors to changes in self-efficacy, “verbal persuasions” were not a significant factor.

Interview 1-John

John had no prior teaching experience in elementary or middle school physical education. John reported that in another Physical Education Teacher Education course at the university he “did a few field work [experiences] in the high school” and continued that “so, this was my first time working with smaller children.” Regarding his teaching experiences in the course, John described how the practical application of the content knowledge was helpful in his development as a teacher. John described its usefulness and how it helped him to know what to expect in the future when teaching physical education. “Student engagement” and “classroom management” were teaching skills in which John’s efficacy improved as a result of “performance accomplishments” and “vicarious experiences”, while additional themes which emerged were improvement in his “confidence” and “patience”.

Performance Accomplishments

Performance accomplishment was the first construct to be addressed within Self-Efficacy Theory which was identified in the interview with John. When asked to describe what his experiences were like when working with the children in the class, he brought up his strategy for building a positive comfort level between himself and the children during their first lesson. His approach was to introduce himself and establish a good rapport by finding something that he and the children shared in common. When coming up to the children he would say, “Hey, my name is John, I like your shirt! Atlanta Braves, they’re my favorite team too.” The outcome of his successful attempt was his improved teaching skill, “**student engagement**”. Verification of how this

performance accomplishment affected his perception of his ability to effectively use “student engagement” techniques was provided when he stated, “I felt like that really helped me with my lessons because when I kept pickin[g] with them and making them laugh, it seemed like they wanted to do it with me, they wanted to do the lesson, they wanted to do it as best as they could.”

John went on to discuss how he noticed progress in his teaching ability as the semester moved forward. He attributed the lack of previous experience as the reason for the need for improvement and how experience in this course allowed him to develop. Engaging and motivating students was a teaching skill upon which John placed high value and emphasized his improved-ability. John recognized that his lack of prior teaching experiences contributed to his lack of preparation to use effective “classroom management” methods. When discussing instances where misbehavior needed to be addressed, John expressed how lack of performance accomplishments early in the semester, led to frustration: “Well, misbehavior I know um, when at first when I wasn’t sure what to do, I did a lot of pulling them aside, asking them a lot ‘Hey let’s get focused’. But after awhile I got tired of repeating myself cuz it didn’t work, so I kinda had to result in time-outs.” However, as time went on, John found a “new method” which he felt was successful in “**classroom management**” by speaking with the students about reoccurring issues, in this case, proper use of equipment. John decided that if the protocol for gymnasium equipment was not followed by the student, participation in activities which involved would be prohibited. John’s interpretation of the outcome of this approach was “And for them being here not being able to participate that kinda made

a point, 'Ya know, I'd better behave'." So I'm trying not to be judgmental but I got better at it as the semester went on."

Vicarious Experiences

An additional construct which helped improve John's self-efficacy was his vicarious experiences when witnessing a peers' success at engaging students which in turn, led to the reduction of the instances of misbehavior. John described how he observed one of his peers successfully use "student engagement" methods with the children. He states: "we had one girl in our group, Elizabeth: she was really great at engaging with them. For example, she had those kids communicate to where children loved her. They wanted to give her a hug, she has that loveable characteristic but yet when she says to do something, they stop whatever they're doing and they listen to her and they know their directions." It became apparent that John also observed his peers' successes in "classroom management". However, there was a period of time prior to this where is entire group experienced lack of success when working with the youngest age group: "I know at first we, our whole group struggled because we started off with five and six year olds and that was kinda the worst group for us because it just seemed like they did their own thing."

John and his group members worked together on Mondays on their classroom management strategies and over time they found more effective methods and John observed his peers' success: "but by the end of the semester we actually had a structured plan and we got everything done and I think was part of our behavioral management plan." He concluded by stating that "at the very end we able to let them just do

everything in our lesson whereas at the first part of the semester we probably spent 20 minutes at the lesson just getting on to people and stopping the lesson and explaining to them why we stopped and got everybody behaved.”

Additional Themes

When discussing his self-perceptions after having taken the course, John referenced improvements in his “**confidence**” and his “**patience**” in understanding differences in children’s ability. He entered the course with a pre-determined set of values regarding his interests in what age groups he did and did not want to work with in his career as a physical educator. However, after having gained experience working with elementary-aged children John expressed a new set of values and beliefs about his teaching interests: “It helped me gain some confidence in my patience especially because I knew coming in that we had to work with five and six year olds and that bothered me.” He then explained his reasons for his lack of enthusiasm in working with this age group: “because when I wanted to become a health and PE teacher the number one thing that I told my mom and everyone was that ‘I’m NOT teaching elementary school. I’ll teach middle school. I’ll teach high school. But no elementary’.”

John continued discussing how he learned to develop patience in children with different motor and cognitive abilities. He began to appreciate diversity amongst students, rather than decide that diversity was not a dynamic of teaching that he wished to encounter. John stated, “I kinda gave the elementary school children a real, fair chance because once the more you work with them, you know, I learned patience. I learned how to not get upset with them when they don’t understand because it’s not their fault because

their bodies are developed as 12 to 15 year olds.” In terms of respect and appreciation for student diversity, John stated that, “I learned that every kid is different. Every kid’s learning style is different.” He continued by providing examples of differences between students’ developmental abilities, stating that “one girl, Sara was amazing, she could do everything she was always at a proficiency level and then we had another kid named Adam and he was almost at a pre-control level.” The result of these experiences was positive in John’s perception of what he gained from his clinical teaching experiences in the course. He stated, “I learned a lot about diverse situations where you, ya know, there’s gonna be classes where you’re gonna have really skilled people and you’re gonna have not so skilled people and I really got introduced to a lot of that this year.”

Obviously, having practical, hands-on teaching is an invaluable source for building pre-service teachers’ self-efficacy. John concluded the interview by making specific references to the value of teaching experience and its effect on his confidence and teaching ability. He expressed gratitude for having the opportunity to practicing new teaching skills prior to the start of his student-teaching: “So, I mean I really think it’s good that I got introduced to it now rather than in the field because if this were to happen to be in a gym with 30 kids and I’m by myself, hah, it would be pretty, at all. So now, I’m experienced to it and know how to expect it and know how to alter it and know how to change things to make it work.”

In summary, throughout the semester John experienced performance accomplishments, constructive vicarious experiences that altered his confidence. He entered the course with pre-determined perceptions of students’ motor and cognitive

abilities which played a role in how his level of confidence was established prior to course entry. John also had vicarious experiences which although he did not witness his peers' use of inappropriate teaching methods, he was able to distinguish these from proper teaching methods of his own and his peers. Upon completion of the course, John had appeared to improved self-efficacy of his patience and teaching ability at engaging students and managing behavior.

Interview 2-Martin

Martin had no prior teaching experience in elementary, middle, or high school physical education. He did report that he had experience coaching at the middle school level. Constructs within Self-Efficacy Theory that surfaced in Martin's interview were "vicarious experiences" and "performance accomplishments". Martin's efficacy of "instructional strategies", "classroom management", and "student engagement" improved while additional themes which emerged were "group performance accomplishments" and "modify". "Group performance accomplishments" was related to "Performance accomplishments", a main construct within Self-Efficacy Theory (Bandura, 1977), and will be further discussed in the upcoming "Additional Themes" section. Modifying activities to serve the unique cognitive, motor, and affective developmental level of each child was a teaching skill upon which major emphasis was placed in Teaching Educational Games. Students learned to use "movement concepts" (Graham, Holt/Hale, & Parker, 2007, p. 30) such as "up/down", "forward/backward", "right/left", and "clockwise/counterclockwise" (p. 29) when utilizing this teaching skill.

Vicarious Experiences

The first construct, vicarious experiences, surfaced when Martin was asked to describe what his initial experiences were like when working with the home school children. Martin's lack of prior teaching experience with any age group in physical education led him to place a strong sense of trust in those peers that were seniors and did have prior teaching experience. He felt their ability to be flexible was a skill that he could gain throughout the semester. He said, "I thought the biggest thing that's helped me most is my peers that were in my group. Some of them were older than me and they are like seniors so they have more teaching experience." By observing their effectiveness and following their example he felt successful at using this skill. He continued by saying: "I think some people in my group are very flexible and I became more flexible and I think it really helped out."

Performance Accomplishments

Martin made several statements about how his teaching experiences in the course contributed to his improved self-efficacy by having numerous performance accomplishments. Martin took the lesson planning part of the class very seriously and felt that the course was effective in helping him learn to develop games for the children that were educational and improved their motor skill capacity. Using **instructional strategies** were one of many teaching skills that pre-service teachers were taught throughout the semester and Martin discussed learning to apply this skill in his teaching motor skills. He recognized his effectiveness developing lesson plans in which he would feel comfortable exploring new instructional strategies, hence resulting in his improved

self-efficacy.: “I felt like this course really helped me out with instructional strategies and making lesson plans.” Making activities “fun”, “interesting”, and providing “visuals”, “talking about it” with the children, were the methods of engaging students in educational games, that he found to be most effective.

Additional Themes

Throughout the clinical teaching process, the specific teaching skill that Martin believed he improved was to **modify** activities to accommodate different GLSP’s. Beginning to recognize differences in students’ developmental ability and to modify the activities accordingly was an area where Martin experienced many performance accomplishments. He began to move away from being solely dependent on his lesson plan and alternatively began to immerse himself in teaching. He provided an example of his ability to modify: “She had never picked up a badminton racquet before we started out just hitting it high back and forth until she got more comfortable and what I told her, I hadn’t written down in my lesson plan.” Martin felt successful in being able to modify the activity he had originally planned for his lesson: “I told her ‘Let’s just see how many times we can get it in a row just to see if we can get more comfortable’.” He went on to describe how he gradually increased the level of difficulty of the task as the child showed clear signs of progress: “and so we went back and forth until we got 12 times in a row. And then I was like “Do you think we can get to 20?” And we got to 30 very easy she was just getting very good at it.”

Martin grasped many aspects of modifying activities and understood that activities must be modified to become more or less challenging and that a psychological

goal is to keep the child motivated by finding the balance between too easy or too difficult: “What I typically did when I saw it was not developmentally appropriate is I would just switch it to either easier or harder so I could keep them intrigued and I always made sure my directions were very-like we had been taught; “Keep it Simple Stupid”.”

A second theme which emerged, **group performance accomplishments**, pertained to subjects experiencing success when working as a group. Every week subjects worked in groups to develop lesson plans and plan their teaching strategy. There were times when subjects, in this case Martin, felt that the approach or methods the groups used were highly effective in achieving their educational objective. The result of this group performance accomplishment was an improvement in the subject’s efficacy of the teaching skill which was utilized. The following instance demonstrates Martin’s improved self-efficacy in utilizing the teaching skill “behavioral management”. Martin also experienced instances where children’s lack of appropriate behavior needed addressed. He discussed how he and his peers experienced group performance accomplishments: “One thing I remember is something that we did and fixed it [misbehavior] pretty quickly. The first week had this very friendly kid. He was a little goofball, didn’t cause any trouble but he was very silly and we kinda laughed.”

Martin went on to describe how at the next group lesson planning session he and his group members discussed this boy’s behavior. They felt that even though they found it humorous and laughed, it could potentially compromise the quality of their lesson by distracting other students and disrupting the flow of the lesson. Martin’s group came to a conclusion: “we realized the first week that if we did that [laugh], he’d just feed off of

that and he'll continue to cut up. So we talked about it after class and the next week we did not laugh at him. He did silly stuff; we did not laugh." The approach Martin and his group members agreed to implement was successful; hence a group performance accomplishment positively affected his self-efficacy of effectively using classroom management: "And that next week, you know, he was good. And I feel like that solved it. I feel like that's something we did really good."

"More time to teach" was the third additional theme to emerge and it demonstrated subjects' belief that they had improved their teaching to a level at which they would be able to see significant improvements in the children's skills over time. At the end of the interview Martin added that he felt having more time to teach the children would have allowed him to develop his teaching skills even further: "I wish it was longer but I think it was six-seven weeks, something like that and that's better than what you're going to get in most classes." The clinical teaching experiences lasted for a total of nine weeks, but as interviews with the other subjects continued, more time to teach students became a continual theme.

Interview 3-Nick

Nick had no prior teaching experience in elementary, middle, or high school physical education. He reported having "coached a lot of times" at the high school level. Preceding his entry into the course Nick showed a strong opposition to teaching elementary and middle school physical education. Rather than teach elementary-aged children, Nick expressed his desire to work with high school students: "coming into it like I said, all I'd really done was coach and that was at the high school level. And high

school teaching was what I really wanted to do, I've always been confident coaching and teaching at that age group." The interview with Nick revealed the constructs performance accomplishments and vicarious experiences which in turn resulted in his improved efficacy of utilizing effective instructional strategies and managing behavior. The theme "group performance accomplishments" emerged in addition to "patience" and "confidence". However, a new theme was generated pertaining to gender and teach: "matching teacher-student sex". Nick's belief that matching the same sex of the teacher with that of the student was an appropriate way in which to address instances of misbehavior. It is unlikely however, that this particular vicarious experience was beneficial to his self-efficacy since he was not the same sex as this peer.

Performance Accomplishments

Nick endeavored to become accustomed to working in an environment with younger children despite what he perceived to having had limited performance accomplishments early in his clinical teaching: "So this class, when it first started off I struggled a little bit." His efforts were eventually rewarded and his self-efficacy was strongly enhanced: "but after the first couple weeks learning how to deal with kids was a great experience. And now I'm very confident that I can teach at any age group. So even though I do want to do high school it is good knowing that I can teach younger kids." He gained confidence in his ability after having had performance accomplishments when working with younger children, even though he had prior aspirations of working only with high school-aged students in physical education. Evidence of the effectiveness of his performance accomplishments at improving his self-efficacy was provided in his

description of his strategies for introducing new motor skill learning activities to the children. He stated that “Before each task I’d bring them in the circle and demo the activity and then start. I also tried having them do it at the same time with me, but it was too hard for them to concentrate on doing it and listening to me, so I found what worked and stuck with it.” The structure of the Teaching Educational Games course permitted the pre-service teachers to explore different instructional strategies for various activities and discover the effectiveness of each to best profit from experiential learning. Therefore, Nick’s success was not immediately when the course started. Instead he found it mid-semester: “and I didn’t start doing that until about halfway through the semester after I learned a couple of things.”

Vicarious Experiences

When continuing the discussion on effective instructional strategies, the conversation with Nick shifted into the vicarious experience construct. Nick discussed how he and his peers witnessed each others’ effective teaching and then adopted one another’s methods. For example, Nick stated that “For me personally, I benefited a lot from having multiple teachers in a group. We all kinda fed off each other ya know? Like when one of us would come up with a great idea and it worked or a new way of doing things, the rest of us would jump right on that too.” Again, the dynamics of the Teaching Educational Games course allowed subjects to observe one another teach and profit from several vicarious experiences. The teaching skill to which Nick was referring, was the proper use of instructional strategies.

Additional Themes

Matching teacher-student sex also became part of a routine for the skill of managing behavior. When Nick observed instances where students' behavior needed addressed, he and his peers discussed the development of a routine which they could utilize. Nick's group believed that matching the sex of the pre-service teacher with the sex of the student was an effective method: "We actually had one of the teachers that was of the same sex go over there and speak with the student cuz I feel like it's easier for the student to relate to the same sex. In that instance I didn't have to do a lot with that".

This does not substantiate evidence though for an increase or decrease in Nick's teaching efficacy of managing behavior even if he witnessed a peer (vicarious experience) successfully perform this skill. It is unlikely that this improved his self-efficacy since Self-Efficacy Theory supports that the individual's self-efficacy may improve when he or she identifies with the performer (Bandura, 1986). In this instance, Nick was of the opposite success of his peer. Again, Nick talked about how he and his peers' perceived that matching the sex of the teacher with the sex of the student was also an effective method of student engagement: "Some of the teachers of the same sex spent a lot of one on one time with that student and they would do something that she wanted to do on the term that after they did that she needed to come back and participate." Nick obviously perceived this method as appropriate and effective when he stated, "That actually seemed to help because it got the student engaged even if it wasn't what the class was doing but then after they did that then they came back and participated. So that actually really worked."

Finally, the themes “modify” and “patience” emerged at the end of the interview when Nick was asked to discuss what instructional strategies he used that worked well: “early on in the semester I had a tough time developing age and skill appropriate lesson plans. So I’d have to modify them a lot so certain tasks wouldn’t be too short or too. And as the lessons went on I got a lot better at that.” He recalled the notions he had prior to the clinical teaching experiences about his ability to work with elementary-aged children: “it was a little challenging to start off with because I wanted to teach high school. The patience that a younger age group requires was difficult to begin with but after the first couple of weeks I learned about to deal with it.”

Interview 4-Tracy

Tracy had no prior teaching experience in elementary, middle, or high school physical education. Tracy did report having spent a lot of time with children at camps and that she used these experiences as a way to develop similar activities in her lesson plans in the Teaching Educational Games course. She entered the semester with pre-determined beliefs about her ability to work with children and felt taken off guard. She felt frustrated with her apparent lack of success at “classroom management” however, after having had vicarious experiences and trying the methods she observed her peers using successfully, she was able to effectively accomplish her goal and feel more “confident” in her teaching as well as being able to “modify” activities to be developmentally appropriate without being over-dependent on her lesson plans. Along with “modify”, the result of having performance accomplishments and positive vicarious experiences in classroom management, Tracy developed more “patience”, which was an

additional theme that emerged. “Student engagement” was also a skill at which Tracy felt she found effective methods via performance accomplishments.

Vicarious Experiences

“Vicarious experiences” was a construct that was very apparent in the interview with Tracy and how this factor played an important role in her efficacy of teaching. The primary challenge for Tracy was developing confidence in her ability to effectively manage students’ behavior after having been a counselor at a children’s summer camp where the behavioral dynamics were quite different than those in Teaching Educational Games. Initially, during the discussion Tracy discussed how prior to entering the course she felt as though she had already mastered this skill. She offered an example of a scenario in which she was surprised that she struggled to effectively address a students’ behavior: “this one girl that we had, Christy was her name-she was all over the place and I had never dealt with anyone like that before. Usually managing misbehavior isn’t that difficult for me.” The interviewer repeated verbatim Tracy’s description of the misbehavior to confirm the difficulty of addressing it. The interviewer then commented that having a child misbehave is “good practice”. Tracy laughed and agreed that having the opportunity to work in a clinical setting where students misbehave allowed her to improve her teaching ability, even though her early successes were intermittent: “And I mean the things that were effective, if I had success with her it was in small spurts like it was just a few minutes and then she would revert [laughs] or relapse whatever.”

Fortunately, she witnessed her peers’ success and valued their methods, which had a positive influence on her self-efficacy. When asked to discuss her peers’ methods

of **classroom management**, she answered: “They always did a good job and it was impressive for me to kinda watch like how they handle stuff.” Tracy observed her peers successfully utilize effective classroom management methods which were to first recognize which situations need to be dealt with and which can be ignored: “they were good at choosing their battles because if they’re doing something that’s not disrupting everything then just let it go.” She also felt that when it came time to address the behavior their methods were very effective. Particular methods that she found salient were when “They’d say ‘Hey, this is what I expect of you’ or ‘When I’m talking you’re not talking’ that sort of thing and doing it in a way that asks for their respect and generally the kids were good so it worked after like calling them out the first time’.”

She continued by discussing how she decided to “pick and choose” what behaviors needed to be addressed and that “the things that were effective were obviously not stopping everything just to call her out.” Tracy observed her peers’ success, adopted the same methods which were the majority of times effective and her self-efficacy of managing behavior improved. Still, Tracy felt that while she was at times successful, there were other instances where she could have been more effective.

Performance Accomplishments

Tracy continued by discussing how earlier in the semester her apparent lack of success in managing behavior led to frustration. Eventually she was able to overcome her frustration and experience performance accomplishments by trying out different techniques to address the situation: “Just working with her individually and talking to her it’s easy to get frustrated with her and be like ‘Grrrrr!’.” A new method she explored was

“to give her some responsibility and just be like ‘Okay, show me how to do this task’ that type of thing. Or like ‘Show me what I’m doing wrong and how can you fix it?’ And she was all over that.” Her performance accomplishment in this case was apparent when she finished this story by stating, “So those were the main things I did and they would work.” In reference to Tracy’s improved efficacy of engaging students, she felt that her methods were successful when she would model engagement by using humor as a means by which to make activities enjoyable for the children; “I do think it’s important that they know you can be silly with them and that you have to be actively engaged in the activity cuz if they see that you don’t care then how should they care? So, the biggest thing for me is enjoying what I’m teaching them and showing them that I like it and then doing it with them. That’s the biggest thing that I found to be effective.”

Additional Themes

An additional theme that emerged was learning patience when utilizing classroom management methods. Tracy stated how she was able to improve her patience after successfully dealing with misbehavior, by stating, “I guess once I got her to participate without her running all over the place, out of control, I guess I was more patient and it didn’t frustrate so much as it did before-dealing with it all.” Other themes that emerged were undoubtedly evidence supporting improved self-efficacy as a result of having clinical teaching experiences. Tracy continued in the interview by affirming what aspects of her teaching experiences improved throughout the semester. Confidence in her overall teaching ability and particularly in lesson planning was quite distinctive: “But I definitely feel confident, also in my lesson plans and stuff cuz I never really made a lesson plan

before so that was helpful.” And when teaching the lesson plan she felt that her ability to modify had become especially effective: “it was helpful just practicing making lesson plans and learning how to modify them based on the kids so I learned that flexibility is the name of the game!”

Tracy’s improved confidence in her teaching provided encouragement for her to move beyond her dependence on her lesson plans and take the initiative to modify the educational games when necessary: “And so I generally like to stick to lesson plans, and so it was a good lesson for me to learn like, ‘Okay, this isn’t working. Let’s try something else. Let’s change it.’ So, that was really good practice. I liked it.”

Interview 5-Diane

Diane reported having had previous experiences during her senior year of high school working with her former elementary physical education teacher. One of her future ambitions was to work with elementary-aged children in physical education. Diane’s vicarious experiences and performance accomplishments had a positive influence on her self-efficacy as did her group performance accomplishments. “Matching teacher-student sex” occurred again in the subjects, as did “confidence”. Skills in which performance accomplishments, group performance accomplishments, and vicarious experiences played a positive role on Diane’s self-efficacy were managing behavior, use of instructional strategies, and student engagement methods.

Performance Accomplishments

One of the performance accomplishments Diane experienced was in a situation that was quite unexpected. A seven-year-old student accidentally collided with another

student during her activity, injuring her lip. Diane realized that the manner in which she would assess the situation would influence the child's emotional response. Therefore, she displayed an air of calmness and maintained her composure: "I told her 'You're going to be okay.' I found that the more you tell them 'You're fine' instead of like how one of my group members was like, 'Oh my gosh, you're bleeding!', then she was just like ahh!", and I was just like 'No! Don't tell her that!' and I got her calmed down and she was okay." This incident was one that was particularly valuable in finding results in determining the effect of such on Diane's self-efficacy of classroom management. This is an example of a situation in which she felt she handled appropriately and in this case, performance accomplishment played a significant role in Diane's teaching efficacy. At the start of each activity Diane prioritized students' understanding of the educational game and her means by which to do so involved "visual directions", to "give explanations of the game", and "actually perform the tasks they needed to do." Diane expressed much enthusiasm in her apparent successes of engaging students: "I felt like that helped them out a lot and it got them excited. They were like 'Oh! We get to do that!' So you just kinda like get them fired up about it and they'd want to participate."

Vicarious Experiences

Diane discussed how her teaching style differed from one of her peers when it came to behavioral management strategies. She felt that her style was too flaccid: "I feel like I tend to be too nice [laughs] and I'm a little too passive" which led to somewhat fruitless outcomes. She deemed this peer's style to have more effectiveness than her own: "he's just a little more straightforward with the students and lets them know like:

‘hey, you really need to do this’ and that worked.” After having successfully adopted this peer’s approach she determined that: “All I know is that you can’t let the kids take advantage of you.” Obviously, this vicarious experience led her to believing that she too would be successful if she was to utilize the same teaching approach and hence, her self-efficacy was boosted.

Additional Themes

Taking into account methods of managing behavior, the theme “matching teacher-student sex” emerged in Diane’s discussion of effective methods in teaching. She began by identifying a situation where a female student was having a behavioral issue. Diane and her group members collaboratively decided on selecting a group member that shared the same sex with that of the child to address misbehavior: “we had one of our teachers work with her and it worked out good cuz she got her to participate more than we thought she would participate.” Rather than have the teacher leading the group address the behavior, they decided to select a group member which they felt would have the most effectiveness. In this case and as with Nick, the group member selected was one that shared the same sex of the student. As time went on the theme “matching teacher-student sex” became more apparent during the data analysis process.

“Confidence” was the next additional theme that was to arise outside the constructs within Self-Efficacy Theory. Early in the semester the PETE students began their clinical experiences by co-teaching. As time progressed the pre-service teachers then taught each part of the lesson independently, which as Diane believed, were helpful in raising her confidence in teaching: “I think the more experience I get teaching by

myself, anytime working with kids, I think that's going to help me build confidence in myself." The course was also structured so that once co-teaching was no longer part of the clinical teaching experiences: the children were divided into smaller groups, to serve as a transition prior to teaching the entire group by oneself: "Like I'm confident in my teaching as far as getting with a small group of students" and now felt more confident to work with larger groups."

Diane's statements demonstrated how "group performance accomplishments" played an important role in affecting her self-efficacy. Throughout the interview she placed a great deal of emphasis on how her group worked together well and were able to learn from each other: "We did a lot of the same stuff and kinda bounced off of each other. We were a really cohesive group and I think we did a really good job." She and her group members devoted much of their planning time on establishing protocol and a routine as part of their instructional strategies. Diane discussed how they "used a lot of visual aids as far as getting instructions across and we tried to do our lessons chronologically." Regardless of whose turn it was to teach, all group members followed the same routine throughout the lesson. They started, as did all the pre-service teachers in the Teaching Educational Games class by opening with an "Instant Activity". Their routine was well-structured and consistent: "We would get them introduced with something really simple and then the next task we would add something to that first task to make it a little more difficult but still engages them in that first task". The group then completed their technique by expanding upon steps one and two: "And the third, we would do kinda the first two added into the last one".

Interview 6-Molly

Molly was a junior in the course and reported having previous experience volunteering at her church teaching pre-kindergarten children. Her experiences were not in physical education. Performance accomplishments and vicarious experiences were amongst the constructs within Self-Efficacy Theory that emerged and positively affected Molly's efficacy of "manage behavior", "engaging students", and "instructional strategies". Additional themes were "modify", "hands-on clinical teaching", and "confidence".

Performance Accomplishments

During the interview, Molly discussed her performance accomplishments at **managing behavior**: "I learned a lot and learned more classroom management and behavior management and what not. So it was good." In the required readings, chapter 10 "Maintaining Appropriate Behavior" (Graham, Holt/Hale, & Parker, 2007) discusses "Ignoring inappropriate behavior when it is inconsequential or a nonproblem" (p. 147). Molly's response to the interviewer's question "What did you do to manage students' behavior?" provided evidence of her successful application of course content: "It depends on whether or not it's interrupting the class. I mean if they're still being involved and acting out and it's not really interrupting anybody else, then I just let it go and ignore it." Molly felt her ability improved at the skill of differentiating times when behavior needed to be addressed versus ignoring the behavior: "But if it starts interrupting the class, I might say something to them. I pull them to the side. I talk to them. And if that didn't work, I let them help with demonstrations." She went on to describe how overtime she

consistently improved her ability and by the time the end of the semester was reached she felt very effective in her classroom management ability.

The theme “modify” was apparent when Molly discussed how she was able to accurately assess students’ GLSP and modify the activity to be developmentally appropriate when she would “Just kinda be there and make the activities appropriate for them and if not, modify it so that they can do the activity.” Molly was then asked if she used the same methods effectively throughout the duration of the semester to which she replied, “Um, I kind of encouraged the students and what not and tried to modify it basically. So I found myself getting much better.” The conversation of making developmentally appropriate activities continued with Molly describing her performance accomplishments: “Yea, sometimes I would over, I guess give them too much credit about their skill and I’d have to either change the lesson plan, like the task entirely or just modify it so they could do it.” Molly also felt by modifying an activity to make it more developmentally appropriate for the child, increased the child’s “interest” and “helped them enjoy the activity”-thereby effectively utilizing “student engagement” methods. In addition to developing skill-appropriate activities, Molly also felt that consistent “encouragement” and working “one on one” with the children was effective.

Vicarious Experiences

Again, how the structure of the course allowed students to observe their peers’ teaching remained visible in this interview. The students that were not teaching did not remain idle, but instead completed peer evaluations. Molly talked about how she and her peers learned different **instructional strategies** from each other: “I mean we all just

kinda loafed off of each other. Whoever was teaching that lesson would be the only one with the kids giving the instructions and everybody else would just kinda stay back and watch so that they weren't distracted."

Additional Themes

Molly felt that the **hands-on clinical teaching** experiences were very effective in helping her improve her overall teaching ability: "I thought that they [teaching experiences] were really great. It helped me to gain a lot of experience being that it was hands-on with the kids." The interview concluded with the interviewer inquiring, "How confident you feel in your teaching skills after taking this course?" to which Molly replied, "I thought it was really helpful honestly and I would encourage other people to take it if they could and to keep the course as it is." It is noticeable that the structure of the course resulted in numerous performance accomplishments and vicarious experiences, which positively affected her overall confidence in her ability to manage behavior, modify movement activities for children, and use effective instructional strategies.

Cross-Case Analyses

Numerous themes were found via qualitative analyses throughout this study. A breakdown of the a priori themes is provided in Table 6. The themes "performance accomplishments" and "vicarious experiences" occurred in all six interviews with subjects. Observe that all themes occurred across both genders: the theme "group performance accomplishments" occurred in two males, Martin and Nick, and also occurred in one of the females, Diane.

Table 6: Themes in the Category of Constructs within Self-Efficacy Theory

Themes	Participants						Total
	John	Martin	Nick	Tracy	Diane	Molly	
Performance Accomplishments	X	X	X	X	X	X	6
Vicarious Experiences	X	X	X	X	X	X	6
*G.P.A		X	X		X		3
Total Number of Themes	2	3	3	2	3	2	15

**Group Performance Accomplishments*

**Verbal Persuasions did not occur as themes and are therefore not included in Table 6.*

A breakdown of specific teaching skills resulting in themes is provided in Table 7.

The theme “student engagement” occurred in all six subjects. The themes “classroom management” and “instructional strategies” occurred in both groups of subjects. The theme “classroom management” occurred in all of the females.

Table 7: Themes in the Category of Specific Teaching Skills

Themes	Participants						Total
	John	Martin	Nick	Tracy	Diane	Molly	
Student Engagement	X	X	X	X	X	X	6
Classroom Management	X		X	X	X	X	5
Instructional Strategies		X	X			X	3
Total Number of Themes	2	2	3	2	2	3	14

A breakdown of the additional themes which emerged is provided in Table 8.

“Confidence” was a theme that emerged in all subjects. The themes “modify”, “patience”, and “same sex” occurred in both groups, however not with every interviewee in each group.

Table 8: Additional Themes

Themes	Participants						Total
	John	Martin	Nick	Tracy	Diane	Molly	
Modify		X		X			2
Patience	X		X	X			3
Same Sex			X		X		2
Total Number of Themes	1	1	2	2	1		7

Course Evaluations

The results of the qualitative data in the course evaluations completed by the males and females are provided in the following sections. Findings within the males' course evaluations will be provided first, followed by findings within the females' course evaluations. The findings within each gender's course evaluations will be presented as follows: overall confidence and specific skills, knowledge base and traits, course structure, and suggestions the subjects provided for the future of the course.

Males

Overall Confidence and Specific Skills

Results of the course evaluations showed that males' "overall confidence" of teaching improved. At different times, males provided descriptions and explanations of scenarios which improved their overall confidence. The following examples are amongst many written instances where males supported that their overall confidence improved: "I just was very respected [by the children], so that boosted my self-confidence", "better and more confident", and "feel confidence teaching alone" rather than co-teaching with a peer. However, the male subjects more frequently generated lists consisting of identified personal traits or teaching skills, which they perceived as having significantly improved

over time. In these, the most frequent trait listed was “confidence” while the most frequent skills were “student engagement”, “managing behavior”, and “instructional strategies”. Specific identifiers of these themes were “engage” and “actively involved”, “misbehavior” and “on task”, and “modify” and “assess”, respectively.

Knowledge Base and Traits

In addition to aptitude, there were also several written statements which were identifiers of their perceived newly acquired knowledge base in teaching physical education. Males discussed their improved understanding that all students are diverse and have different motor skill abilities and levels of affective development. Particular examples are: “All age groups are different”, “The fact that I could teach any age group and be successful”, “I enjoyed all different students and tasks”, “Each child develops at different rates and working with the students showed me that”, and “Saw a lot of different types of motor performances with all different children.” A result of this better understanding over time was the males believing that their “patience” also improved when working with students of different GLSPs and levels of affective development. For example, the statement, “It helped me gain patience in helping students who were not as skilled as the other students.” These two different codes were regularly written in sequence in many of the males’ course evaluations. The final themes which emerged was males overcoming feeling “nervous” and establishing a better “level of comfort” when teaching.

Course Structure

In the course evaluations males described various experiences and specific aspects of the course structure that positively contributed to the evolution of their self-efficacy. Factors within Self-Efficacy Theory which were undoubtedly major contributors were “performance accomplishments” in the “hands-on clinical teaching” experiences and their “vicarious experiences”. A specific aspect of the course which subjects felt was helpful in their development was the content-knowledge they acquired from the required text (Graham, Holt/Hale, & Parker, 2007), particularly the chapters on GLSPs and managing behavior. Other themes in the course evaluations that emerged also demonstrated specific aspects of the course that affected their self-efficacy. These were the dynamics of the “group discussions” following each teaching experiences, the “instructor”, and the “required readings”. For example, the males wrote, “the group discussions”, “professor and peers during preparation lessons and group discussions”, “the book was good, Jay [instructor] knew his stuff”, “The book and the teacher were very instrumental in me obtaining new knowledge”, and “In the book I learned a lot of ways to assess children’s motor performance.”

Males’ Suggestions

Males believed the quality of the lessons they provided to the children would have been better if they had “more time to teach” with each age group. The “Teaching Educational Games” course was structured so that during the first six weeks of teaching the pre-service teachers worked with a different age group each week. During the final three weeks of teaching, the pre-service teachers constructed a course “unit” consisting of

three lessons. “To teach each lesson more than once to a particular group of students besides the end of the semester when we taught a three week unit” is one of many of the same suggestions males had for the course. In addition to “more time to teach” the other suggestion was provided by one male, “more credit hours”. The male pre-service teachers suggested they be awarded more than one credit hour for their course participation.

Females

Overall Confidence and Skills

Results of the written portion of the course evaluations showed that females’ self-efficacy improved in “overall confidence”. As with the males, the females frequently made one word responses, or one to two brief sentences providing their answer. As with males, “Confidence” was the answer most commonly provided by female in item 10 on the course evaluation. Item 10 asked subjects to “List the three most important things you got from this course.” Statements which were identified as subjects’ improved overall efficacy include but are not limited to: “I’ve gained confidence and became more comfortable with the kids. I know I can do it”, “I feel more confident” and “Improved my confidence a lot!”

The results of the course evaluations also showed that females felt the course was helpful in improving their ability at various teaching skills: “student engagement”, “behavioral management”, and utilizing “instructional strategies” which also include the teaching skills of being able to accurately “assess” children’s adeptness and “modify” learning activities. “Student engagement” arose in the females’ course evaluations as an

improved teaching ability. One subject stated that she “Learned by engaging students’ cognitively allowing them to give feedback and answer questions.” Results showed that females did not believe there were many instances of misbehavior: “Didn’t have too many kids misbehave”, “Not a lot. The younger kids don’t listen very well” and “Some groups of kids didn’t misbehave.” However, when they did take place they believed the course was helpful in improving their ability at “managing behavior”. For example, “I saw some kids who behaved well and misbehaved and it taught me how to manage and deal with different behavior”, “I learned that there are different ways to handle misbehavior”, and “[The course] Allowed me to see how students interact with each other and how students differ. You have to handle each student differently.”

Results showed that “instructional strategies” was a major teaching skill in which females recognized their improved ability, particularly when learning to accurately “assess” children’s motor performance. The following statements provide examples of such: “Learned that not all students can be handled in the same manner”, “Saw a lot of different types of motor performances with all different children”, “Some were at different levels”, “Dynamics of children learning at different paces”, and “By watching students perform skills I was able to evaluate students and their performance. “Modify” was a subcategory in “instructional strategies” and frequently emerged in the females’ course evaluations. In regards to females improved efficacy of utilizing instructional strategies and modifying activities, the following statements exemplify such: “Ways to modify plans for reflective teaching” and “Working well and adapting to others’ needs.” The highly influential factor in Self-Efficacy Theory, “performance accomplishments”

also became apparent in the results. When asked to state the “Things that changed your confidence in the course”, one female answered: “Getting to take lesson plans and being able to modify them during the lesson.”

Knowledge Base and Traits

“Be patient” was a common answer in the course evaluations when females were asked to list the “Three most important things you got from this course.” Unlike the males, an immediate link between learning “patience” and having an improved ability to use the GLSPs to “assess” students’ motor proficiency was not found. However, results showed that females believed their knowledge of the GLSPs improved and therefore led to the betterment of their ability to “modify” movement tasks accordingly. Females also made several statements indicating that the course helped them overcome being shy and increased their level of comfort when working with children: “More time to work with students allowed me to be comfortable in front of students” and “I’ve gained confidence and became more comfortable with the kids. I know I can do it.”

Course Structure

Having numerous “performance accomplishments” (Bandura, 1997) in their hands-on clinical teaching experiences was the major contributor to the positive development of the females’ self-efficacy. Results showed that females’ perceptions of what aspect of the course most helped improve their overall teaching, “hands-on clinical teaching” experiences were the most common answer. Examples include: “The hands-on experience really helped me try out my lesson plans and get a taste of what teaching is really like”, “Learning what works and what doesn’t”, “I was able to interact with

students in classroom like situations”, and “Exposure to a variety of ages, skill levels, and situations.” “Vicarious experiences” was also among the significant factors contributing to the females’ self-efficacy. Females’ answers demonstrated how the course structure improved their self-efficacy via constructive vicarious experiences: “Helped watching my peers”, “Saw how students interacted with other students as well as their teachers”, and “Working with peers allowed me to learn new teaching strategies.” The required readings (Graham, Holt/Hale, & Parker, 2007) were often referenced by the females in their course evaluations. Females stated that “The book was very helpful”, “Book did a great job breaking tasks down” and that it contributed to their knowledge of “Pre-control, control, utilization, proficiency-depending on how advanced the child is” so they could learn to “assess” motor performance by using these four GLSPs.

Females’ Suggestions

Having “more time to teach” was the most common suggestion females made for structure of the Teaching Educational Games course. Females felt that the quality of their lessons would have been better if they had more time teaching each age group with which they worked. Their rationale was that more time with students would mean more time to assess the students’ ability, plan lessons accordingly, and then watch the students make progress. Examples of these arguments are: “It would help more if we had more time with the students to see their growth”, “Difficult planning lessons not knowing children before”, “I’d suggest teaching more lessons-start earlier so you get more than one day with each age level”, and “This class should try to have more time with the students to watch them progress more.” One other suggestion that females offered was

awarding more credit hours for completing enrollment in Teaching Educational Games: “more credits” and “Have it be worth 2 credits!!” The final suggestion offered by a female was quite different from the first two suggestions. When subjects were asked to offer any suggestions for the course, one female stated not what changes she would recommend, but offered a suggestion for future students: “Come in opened minded-by the end of the semester you’ll be a lot more advanced.”

Lesson Plan Reflections

Males

“Performance accomplishments” and “vicarious experiences” were two factors in Self-Efficacy Theory that emerged in the lesson plan reflections. “Verbal persuasion” did not emerge as a significant factor affecting the male pre-service teachers’ self-efficacy. Trends surfaced between these two factors and in the following teaching skills: “student engagement”, “manage behavior”, and “instructional strategies”. The ability to “modify” activities was consistently linked with “instructional strategies”. In addition, the males’ performance accomplishments materialized into developing more “patience” when teaching physical education. Males believed that when they had “more time” working with each age group this was helpful in improving their teaching aptitude. “Hands-on clinical teaching” experience was shown to have a significant and constructive impact on males’ “self-efficacy”.

Student Engagement

Results of the qualitative analysis of the lesson plan reflections showed that males’ self-efficacy of “Student engagement” improved after having repeated

“performance accomplishments” and “vicarious experiences” in the Teaching Educational Games course. One example of many in a male’s statement of improved self-efficacy via having a “performance accomplishment” when utilizing methods of “student engagement” is: “To get the students engaged in the activities, I would simply give a challenge to that student. This made Sahara focus and try her best to meet the challenge.”

Another example, again being one of many pertaining to males’ improved self-efficacy via having a positive “vicarious experience” when utilizing methods of “student engagement” is: “I observed the other student-teachers also challenge the students to complete a specific goal. The students enjoyed Roberts’ game-play situation and had a great time with the task.”

Manage Behavior

Results showed that males’ self-efficacy of “manage behavior” improved after having repeated “performance accomplishments” and “vicarious experiences” in the Teaching Educational Games course. An example of a male’s statement of improved self-efficacy via having a “performance accomplishment” when utilizing methods of “manage behavior” is: “Sonja was much better this week, but she still had her moments. I noticed while I was teaching my activity that the more positive feedback I gave her, the more willing she was to participate.”

An example of a male’s statement of improved self-efficacy via having a positive “vicarious experience” when utilizing methods of “student engagement” is, “I noticed that James had to get down onto Sonya’s level at one point and look her eye to eye in

order to get her to listen to him. For the most part it seemed to be dealt with rather quickly.”

Instructional Strategies and Modify

Results showed that males’ self-efficacy of “instructional strategies” also improved after having repeated “performance accomplishments” and “vicarious experiences” in the Teaching Educational Games course. An example of a male’s statement of improved self-efficacy via having a “performance accomplishment” when utilizing methods of “instructional strategies” is: “We modified a lot of our lessons this week because we realized early on that these kids where more advanced when it became to striking with a hockey stick.” This particular example of “instructional strategies” also showed a link with “modify”. An additional example of a male’s “performance accomplishment” having a constructive outcome on his self-efficacy to “modify” a movement activity is demonstrated in the following statement: “I think this age group really made me realize you have to sometimes change your entire lesson for the kids so that they will be successful.” In his next statement, this subject recognized that each student has different learning style: “Some kids have to have things really broken down for them so they can understand, and you can’t just rely on their age to make them successful.”

Unambiguous evidences of male’s improved self-efficacy via a combined “performance accomplishment” and having a positive “vicarious experience” when utilizing methods of “instructional strategies” occurred several times throughout their lesson plan reflections. The first example demonstrates “performance accomplishments”

in “instructional strategies”, particularly when learning to accurately “assess” children’s GSLPs: “While being able to learn in the beginning of the task, by the end I was able to tell the student if she was doing something wrong.”

This same male’s “performance accomplishment” occurred as a result of having experienced a constructive “vicarious experience”, consequently improving his self-efficacy of using effective “instructional strategies”. He felt that his peers’ ability to use instructional strategies was much more proficient than his own: “My peers knew a lot about field hockey, whereas I did not.” He continued by describing their specific actions which defined their capability: “They were able to teach the student the fundamentals of the game and how to do everything properly. They explained to the student step by step how to do things and would correct what she was doing to make it be more perfected.”

Patience

Results showed that males’ “patience” improved as a result of “performance accomplishments” when utilizing “instructional strategies”. Examples of males’ statements that demonstrate improved patience by implementing effective “instructional strategies” are: “I think I am going to take from this class is that when working with young children patience, demonstration, and descriptive instructions is the way to go” and “I definitely learned patience while working with Sara. She was a tough student but a fun challenge. I am sure there are many young students just like her. She was a challenge, but I will be better prepared when it comes to dealing with a similar student.”

More Time

Male's believed having "more time to teach" the students each week significantly improved their overall teaching ability. This example is improved efficacy of a male's improved teaching efficacy in the skill to "manage behavior": "Behavior was much better this week and I believe a lot of that can be attributed to past experience with the same group."

Hands-on Clinical Teaching

Results showed that "performance accomplishments in the "hands-on clinical teaching" experience played a major role in males' "overall confidence" in their teaching efficacy. A prime example of such is as follows: "We have had these students for three weeks and you can really tell how well they have learned the skill over the past three weeks." The subject continued to express his improved confidence over time by stating: "It was also nice to have the same students for an extended period of time, because we got to know their personalities and abilities and that helped us structure our lesson plans."

The male subjects explained how in many instances the "hands-on clinical teaching" experiences permitted them to develop in many different aspects of a becoming a physical educator. This next statement demonstrates a male's improved teaching efficacy of a new sport to which he had not previously been exposed: "I felt like doing the activities that I didn't have any idea about because I had never been exposed to that sport before and now I will be able to teach that to my students."

Females

“Performance accomplishments” and “vicarious experiences” were two factors in Self-Efficacy Theory that emerged in the females’ lesson plan reflections. “Verbal Persuasion” did not emerge as a significant factor affecting the female pre-service teachers’ self-efficacy. Self-Efficacy of utilizing certain skills improved as an outcome of performance accomplishments and vicarious experiences throughout the semester, these being: “student engagement”, “manage behavior”, and “instructional strategies”. Also, females believed that when they had “more time to teach” each age group this was helpful in improving their teaching aptitude. “Hands-on clinical teaching” experience was shown to have a significant and constructive impact on females’ “overall confidence”.

Student Engagement

Results showed that females self-efficacy of “student engagement” improved after having repeated “performance accomplishments” and “vicarious experiences” in the Teaching Educational Games course. The following statement demonstrates how the result of a female having repeated “performance accomplishments” over time when an improvement in a female pre-service teacher’s efficacy of using the teaching skill “student engagement”: “I probably worked the most with Deuce, and I’ve noticed over the past three weeks that he thrives on encouragement.” Recognizing the specific needs of one child, this pre-service teacher utilized the child’s interests to keep him engaged: “So I focused a lot on positive reinforcement with him and constantly ‘patting him on the back’ every time he understood something or was working hard at a certain task.”

“Vicarious experiences” were a common occurrence among the females. An example of a female’s statement of improved self-efficacy via having a positive “vicarious experience” when utilizing methods of “student engagement” is: “James valiantly tried to engage a student by tailoring the activity to the student’s personal interests.” The female subject continued by describing “James’s” successful approach: “He attempted to get Adam to hit the puck on a straight line by describing Adam as being on the moon; if the puck went off the straight line, the ‘moon stone’ would dissolve into the atmosphere.” She concluded her account by recognizing that “He [Adam] really became absorbed in this concept and became much more motivated.”

An additional example can be found in another female’s statement pertaining to additional techniques used by peers to engage students in the educational games: “My peers did a very good job cognitively engaging our students. Christian used our poster in the beginning so the students would get a mental picture of the correct technique. He also kept them engaged by asking questions and encouraging the students throughout each task.”

Manage Behavior

Results showed that females’ self-efficacy of “manage behavior” improved after having repeated “performance accomplishments” and “vicarious experiences” in the Teaching Educational Games course. One female stated that an effective way to prevent instances of misbehavior as well as to minimize such was to keep students involved in activities that they both enjoy and are of course, educational. An example of a female’s statement of improved self-efficacy via having a “performance accomplishment” when

utilizing methods of “manage behavior” is: “I got involved in the game as well which the students seemed to really enjoy. The students were on very good behavior today since this helped to easily get them engaged.”

An example of a female’s statement of improved self-efficacy via having a positive “vicarious experience” when utilizing methods of “manage behavior” is: “James paired up all of the students when he taught his lesson. The students got a lot of one on one teaching and this helped keep them in line, so I tried it out and it worked out pretty well for me too.”

Instructional Strategies

Results showed that females’ self-efficacy of “instructional strategies” improved after having repeated “performance accomplishments” and “vicarious experiences” in the Teaching Educational Games course. An example of a female’s statement of improved self-efficacy via having a “performance accomplishment” when utilizing methods of “instructional strategies” is: “I used visual instructions and tried to explain activities while the kids were performing them. This allowed them to build on their skill a little bit at time. This allows for the student to learn the skill more thoroughly.”

Through positive “vicarious experiences”, female’s had improvements in their self-efficacy of using “instructional strategies”: “the main thing that they [peers] had to say was to make sure you keep your eye on the ball and keep your feet shoulder width apart. After they drilled that into their heads they got the hang of it and did very well!”

Hands-on clinical teaching and Overall Confidence

The result of females having several “performance accomplishments” and positive “vicarious experiences” during their “hands-on clinical teaching” experience throughout the semester resulted in females’ improved “overall confidence”. Megan’s statement regarding her overall evaluation of the course and what benefits she acquired from her experiences is an excellent example which demonstrates both constructs as well as the “hands-on clinical teaching” theme: “This was my first time teaching and overall I think it was a great hands-on experience. I have watched, learned, and practiced a lot of teaching strategies that I plan to use once I’m in my own classroom.” Megan believed that her experiences both watching and actively teaching contributed to additional teaching techniques: “I have also picked up on a lot of different teaching cues throughout the semester. I look forward to working with these same students next semester.”

CHAPTER V

DISCUSSION

This chapter will discuss the results presented in Chapter IV and the answers they provide to the research questions in this study. The data provides information regarding the effectiveness of a course specifically designed to improve pre-service teachers' self-efficacy and teaching ability via early clinical teaching experiences. This chapter also aims to address what elements of the social construction of gender might influence pre-service teachers' perceptions of effective teaching.

Pre-Service Teachers' Self-Efficacy: Research Question 1

Research question one asked “What are pre-service teachers’ levels of self-efficacy prior to and after their clinical teaching experiences in a PETE course specifically-designed to improve self-efficacy and teaching ability via experiencing “performance accomplishments”, “vicarious experiences”, and “verbal persuasions”?” Answering this question is imperative for all teacher educators of PETE since self-efficacy is a vital part of pre-service teachers’ progress (Guskey, 1988; Chacon, 2005; Eslami & Fatihi, 2009) in their academic career. For this study quantitative data from both the TSES and course evaluations was used to determine whether or not the course

was effective in improving self-efficacy. Results of the TSES showed that there was a significant difference ($p < .01$) over time in both the males' and females' self-efficacy.

The course evaluation showed that the "Teaching Educational Games" course was significantly more effective in improving the males' "Overall teaching ability" ($p < .05$) than it was for the females. It is important to note however that the quantitative facet of the course evaluation was not designed to measure changes in efficacy over time but instead measured differences between the males' and females' self-efficacy at that point in time; the end of the semester. Alternatively, the qualitative portion of the course evaluation is used to supplement the 2 x 2 repeated measures ANOVA from the TSES, which compared differences between genders over time in the first research question.

Research question one was introduced with the knowledge that in-service teachers are at times placed in the field without sufficient teaching experiences (Block, Taliaferro, Harris, & Krause, 2010). If pre-service teachers are to develop into highly skilled physical educators the task of combating the brevity of teaching experiences must be taken on aggressively, regardless of how challenging this may be. Striving to find sufficient time for pre-service teachers while also excelling in their academic work is a common and yet challenging goal shared among many teacher education programs. However, results of the data showed that the pre-service teachers in this study were provided with ample time to work with children in a setting representative to that of an in-service physical educator, which is imperative in the growth and development of PETE students (Kirk & Macdonald, 2001; Lave & Wenger, 1991). Examining the structure of the Teaching Educational Games program is very important seeing that it was

highly effective in helping improve the teacher's self-efficacy. The unique dynamics of the course structure was addressed via collection and analysis of qualitative data. The data helped to enrich the quantitative data and provide answers to research questions two and three which are discussed below.

Factors Affecting Self-Efficacy of Teaching: Research Question 2

Research question two asked “How do “performance accomplishments”, “vicarious experiences”, and “verbal persuasions” affect pre-service teachers’ self-efficacy? The qualitative data sources were used to answer research question two. A cross-case analysis of the males’ and females’ interviews, course evaluations, and lesson plan reflections is provided with a discussion of these analyses.

Summary of Interviews with Males

All of the males shared the same constructs within Self-Efficacy Theory that positively influenced their self-efficacy: “performance accomplishments” and “vicarious experiences. Also, all of the males expressed improved “confidence” as a result of their clinical teaching. Additional themes that emerged as pre-service stated as having improved their ability were shared among two males, which were not always the same two males, were “group performance accomplishments”, “modify”, “instructional strategies”, “managing behavior”, and “patience”. “Matching teacher-student sex” was a theme that emerged in one of the interviews with a male and later emerged among the females.

Summary of Interviews with Females

All of the females shared the same constructs within Self-Efficacy Theory that positively influenced their self-efficacy: “performance accomplishments” and “vicarious experiences”. Tracy, Diane, and Molly stated that their “overall confidence” improved as a result of their clinical teaching experiences. The females believed their effectiveness of “student engagement”, “managing behavior”, and “instructional strategies” improved as did their ability to “modify” learning activities. Tracy felt her patience in “managing behavior” improved throughout the course. Diane believed that using their method of “matching teacher-student sex” was an effective method of “managing behavior”. All of the females’ self-efficacy improved when they saw their peers successfully use techniques which they had introduced to them. Both genders felt that their group members all “bounced off, fed off” each other and used the same techniques effectively- vicarious experiences. This was highly apparent in the similarities between Nick’s and Diane’s interviews in that they both felt that each group member observed one another and learned the effectiveness of various techniques. By observing their peers’ effectiveness at teaching these vicarious experiences were constructive in the development of their self-efficacy.

Establishing Trends

When coding the interviews, course evaluations, and lesson plan reflections, a common link or “trend” (Creswell, 2007) which became apparent overtime with the code “modify” was “assessment”. For example, quite often subjects would describe how they learned to accurately “assess” students’ movements and then “modify” the “task” or

“activity” so that it would be developmentally appropriate for the child. Identifiers of the code “assess” were: “assess”, “observe”, “watch”, and “see”. Results showed that “performance accomplishments” and “vicarious experiences” were factors affecting subjects’ self-efficacy. However, “verbal persuasions” did not emerge as a major factor which subjects described as having been a factor which affected their self-efficacy of teaching. This may be due to a partially effective implementation by the course instructor of Self-Efficacy Theory in the construction of a course specifically-designed to improve self-efficacy. Evidence shows that it is obvious that “performance accomplishments” and “vicarious experiences” were effectively implemented.

However when inspecting the methods by which “verbal persuasions” was employed, it becomes somewhat apparent how they may have been limited. For example, the instructor designed the group discussions as the time in which verbal persuasions would be utilized as encouragement for future successes in teaching. Seeing that these occurred once a week as part of the last 15 minutes of class after each clinical teaching experience, these may have been insufficient in terms of time devoted to verbal persuasions. The second method of employment of verbal persuasions was expected rather than directly implemented. For example, it was assumed that during the time spent developing lessons as a group the upcoming pre-service teacher that would teach the next lesson would receive encouragement from his or her peers. However, findings in the study related to encouragement from peers resulted in “group performance accomplishments” rather than for verbal persuasions seeing that subjects’ self-efficacy was positively impacted when they realized that their successes in teaching were a result

of successful group planning of lessons, rather than encouragement from peers during this time.

Consistent with Self-Efficacy Theory (Bandura, 1977) the first two components: “performance accomplishments” and “vicarious experiences” were the most influential factors affecting an individual’s self-efficacy. These findings also expand upon Self-Efficacy Theory (Bandura, 1977) by adding “group performance accomplishments” as a factor influencing self-efficacy. Subjects often described how having shared performance accomplishments with group members helped boost their self-efficacy. These experiences often included instances where individuals felt they were successful in teaching a lesson planned by their entire group and when each group member was able to successfully utilize a teaching skill, such as student engagement.

“Performance accomplishments” were the most influential experiences affecting their self-efficacy as well as in all three subcomponents. A widespread identifier of performance accomplishments was the term “hands on”. Subjects constantly stated in the interviews, course evaluations, and lesson plan reflections how the “hands-on clinical teaching” experiences working with children was what most helped them improve their teaching ability. This demonstrates how the design of the course permitted students a substantial amount of early clinical teaching experiences to improve their teaching ability and self-efficacy. In all three qualitative data sources subjects supported that their numerous performance accomplishments led to an even higher level of self-efficacy: confidence. “Confidence” was a major theme throughout this study with subjects

describing how their confidence changed throughout the semester and the factors which contributed to such.

In addition to improving teaching skills, the Teaching Educational Games course was structured to help improve pre-service teachers' confidence in teaching. The second major component which positively affected subjects' self-efficacy was their constructive "vicarious experiences". Student-teaching experiences are a critical time in which PETE students' self-efficacy is developed (Bandura, 1997) and this study followed recommendations (Gao et al, 2009) that research on the affects of teaching experiences be conducted prior to student-teaching. Supporting previous research (Rovegno, 1998), PETE students' self-efficacy was highly malleable and improved after having observed their peers' successful teaching. The benefits of these "vicarious experiences" were readily available for the PETE students since the course was structured so they could watch peers teaching male and female students of multiple age groups for the duration of the nine weeks.

In the interviews, lesson plan reflections, and course evaluations, subjects reported that as the semester progressed, the frequency of negative feelings towards teaching decreased. These feelings included feeling "frustrated", "shy", "nervous", and "impatient". This was the case in all three subcomponents, but feelings of frustration mostly applied to when subjects felt they struggled to manage behavior. The findings of this study support those of Kulinna, et al (2006). Kulinna discussed the relationship between teachers and their confidence in managing behavior and how "Better preparation should lead to more teacher confidence and, for at least the teachers in this study, more

confidence equated to fewer reported student misbehaviors” (p. 38). Several “performance accomplishments” throughout the semester allowed students to overcome these negative feelings. A few of these statements made by males and females in the course evaluations which represent such are provided here: “At first I was really shy to speak in front of people, but then I opened up a lot more with the students”, “After experience with children I’m no longer nervous teaching them”, and “It helped me gain patience in helping students who were not as skilled as the others.”

Kulinna, et al (2006) recommended that pre-service teachers be given more experience working with multiple age groups. The instructor of the Teaching Educational Games course implemented an approach consistent with this recommendation by providing the pre-service teachers experiences working with students ranging in grades kindergarten through fourth grade over the duration of nine weeks. One of the main outcomes of the students’ learning from these experiences was that they highly valued employing structured-approaches to classroom management methods. These approaches included but were not limited to: establishing routines so that students would know classroom protocol and expectations, keeping students engaged, working one-one-one with students, and ignoring instances which did not interrupt the flow of the lesson (Graham, et al, 2008).

Components beyond the Theoretical Lens

There were other components beyond Self-Efficacy Theory (Bandura, 1977) which subjects also felt influenced their ability to teach. These included the “Group Discussions”, the “Instructor”, and the “Book”. Subjects described how the Group

Discussions at the end of each teaching experience were helpful in that they received specific feedback from the instructor and their peers, thereby offering guidance for future teaching. Both the males and females made various statements which showed they had confidence in their instructor's knowledge. This in turn assisted them in believing that if they followed the instructor's recommendations this would help improve the effectiveness of their teaching. The subjects also felt the content in the book (Graham et al, 2008) was reliable and improved their knowledge base in the GLSPs and their abilities to "assess" and then "modify" learning activities.

Subjects' Suggestions

In the course evaluation subjects were asked to provide any suggestions they would have for the Teaching Educational Games course. Most of the subjects were very pleased with their experiences in the course and the knowledge and skills they gained. There were however two suggestions that were given by both males and females in the course evaluations and individual interviews. The first and most popular was suggestion was requesting that they be given "more time to teach" each group of students throughout the semester. The first six teaching experiences were with new groups of students each week while the final three weeks were with the same group of students. Subjects felt that each week they would construct a lesson based on the age group they would be working with and then throughout the lesson would then modify the learning activities based on their assessments of the students. The dilemma that subjects described was that after having worked with one group, and having gained an understanding of that group's developmental level, they did not have an opportunity to plan and try out a new lesson for

that group of children. Subjects expressed satisfaction in being able to work with the same group of students for the final three weeks of the semester when teaching a unit. This way familiarity of protocol was mutual between the teacher and the students and the pre-service teachers were able to gain a greater sense of efficacy in their ability to assess, modify, and create new lessons which would meet the needs of their children.

The second suggestion, “more credit” was requested by the males and females in the individual interviews and the course evaluation. Subjects discussed how much they believed they learned in the course from the amount of planning and teaching they completed over the semester and therefore they felt entitled to more credit hours. The Teaching Educational Games course was designed to improve self-efficacy and teaching ability by providing early clinical teaching experiences through “performance accomplishments” and “vicarious experiences”. Therefore, from these statements, subjects obviously felt these factors positively contributed to their self-confidence in teaching.

Males’ and Females’ Perceptions of Teaching: Research Question 3

Research question three asked “How are males’ and females’ perceptions of teaching impacted during their early clinical teaching experiences?” The results of this study provided information on teachers’ perceptions of the role of gender in teaching, which is a topic in teacher education where much research has been needed (Kulinna, et al, 2006). Both genders discussed using “Matching teacher-student sex” as part of their methods for managing behavior and student engagement. “Matching teacher-student sex” was a method the pre-service teachers constructed as a means by which to address

situations during the lesson, particularly when issues of student misbehavior required attention. “Matching teacher-student sex” involved the PETE students’ belief that matching the same sex of the teacher with that of the student was an appropriate way in which to address instances of misbehavior. For example, certain events subjects’ discussed involved having a female teacher work with a female student when the student’s behavior was not appropriate and also when the female student was struggling to find motivation to participate.

The theme “Matching teacher-student sex” was particularly unique in this study in that while it only arose on two separate occasions, once with a male interviewee and once with a female interviewee, the uniqueness of such a technique must be discussed. What makes this particularly intriguing is that this was not a method introduced by the instructor or the text. Rather, it was one that subjects brought into their teaching in the home school program. Therefore, their ideology of gender in the role of teaching was one that subjects acquired outside the course. The discovery of its origin is undoubtedly of great value. Previous research (Kulinna, et al, 2006; McCormack, 1997; Hardy, 1994) in teacher education has examined male and female in-service and pre-service teachers’ perceptions of students’ behavior and how they were affected by the role of gender in teaching and amount of teaching experience.

Kulinna, et al (2006) found that male and female teachers perceived the occurrence and type of misbehaviors to be related to the students’ gender. Both the male and female subjects in the Teaching Educational Games course also reported instances of male students and female students having misbehaved. However, neither the male or

female pre-service teachers in this study described any sort of discrepancy in the children's behavior in relationship to gender. Nevertheless, what is unique to this study is that regardless of the type of misbehavior, both the male and female pre-service teachers agreed that "matching teacher-student sex" was an effective behavioral management method. In both studies, subjects' perceptions of gender, be it the teacher or the student, was considered by the subjects in relationship to "classroom management" methods. Nick provided the only rationale for using this approach yet it lacks a sufficient explanation: "I feel like it's easier for the student to relate to the same sex." Why the subjects felt it was easier for a student to relate to a teacher of the same gender is unknown and needs further investigation.

Dissimilar to McCormack's (1997) findings, both the females and males in this study were strongly opposed to disciplinary action such as detention and time-outs. Alternatively, they felt they were more effective when they spoke with the students one-on-one, and tried other methods such as increasing probability of success for the child, and trying to make the activity more interesting and fun. Both genders believed that in doing so, the child would be more motivated and less apt to go off-task or misbehave. For example, in her lesson plan reflection Elizabeth stated, "You can use time-outs when appropriate, but it is definitely not something I'd use in a professional setting other than when I was nannying." Many of the pre-service teachers' shared a highly-mutual goal among in-service physical educators, which is to encourage maximum participation and maintain physical activity in the gymnasium. In light of physical activity and classroom management, Elizabeth continued: "It's not necessarily something that I would want to

use either since the goal is to have a student be physically active so I would put that as a last resort case for me.” She concluded her answer to the question in the lesson plan reflection on classroom management techniques by stating this perception was also common amongst her peers, and rather than immediately assigning time-outs her peers used it as a “sort of a second measure after first talking to them.”

In the reflection, Elizabeth also stated “I get down on their level. I use eye contact, body language to help communicate what I’m verbally saying” and “in other situations you use the same techniques you use for engagement. You use your own proximity, body language, gentle warnings, and then you go from there.” A written statement which was made by a male, demonstrates the pre-service teachers’ employment of appropriate behavioral management techniques which maintain students’ physical activity rather than resorting to time-outs was made in the Tom’s lesson plan reflection. Tom stated, “after awhile I got tired of repeating myself because it didn’t work, so I kind of had to result in time-outs. I don’t like to do time-outs because I don’t like to sit someone down, because the whole point of PE is for them to be active.” He continued by describing how he used the element of “fun” as an incentive for students to avoid misbehavior and be awarded by being able to be physically active: “so I kind of made a new method to where we were doing a fun activity and I could see they were having fun, but goofing around that’s when I would pull them away.” He continued to describe how he would speak with the students and in doing so, make it clear that if they wanted to continue to participate and have fun, they would need to abide by the behavioral protocol.

He goes on to describe how he and his group members' were quite challenged early in the semester with the youngest group of children: "I know at first we, our [team teaching group] whole group struggled because we started off with four and five year olds and that was kind of the worst group for us because it just seemed like they did their own thing and we were just there intertwined in it." As time progressed, so did their proficiency in managing behavior after they managed to have several "performance accomplishments": "But by the end we had full control and we actually had a structured plan and got everything done and I think that was because of our behavioral management [methods]."

Overall, the data analyzed in answering research question three showed that differences between males and females were at a minimum, with the exception of the theme "Matching teacher-student sex." In addition to the quantitative measures which showed a significant difference over time in both genders' self-efficacy, the qualitative analyses also support this finding. Furthermore analyses of qualitative data supports that the males and females believed their effectiveness of "student engagement", behavior management", and "instructional strategies", improved significantly throughout the semester.

Implications

Teacher educators must reflect on the student-to-teacher ratio and probability of success when developing teaching tasks for their pre-service teachers. This factor played an important role in the pre-service teachers' efficacy. The course was structured so that as the semester progressed, the student-to-teacher ratio increased. For example, during

week one the teachers all simultaneously participated when working the students in their group. As the semester progressed, they transitioned to co-teaching and then during the remaining weeks, only one pre-service teacher taught the group of children while his or her peers observed. The student-to-teacher factor affected different subjects in different ways. The majority of subjects felt a low student-teacher ratio was beneficial in their development in that it served as a stepping stone prior to taking on a larger student population. After having numerous and consistent “performance accomplishments” these pre-service teachers expressed more confidence in working with a larger student population. One of the statement that exemplifies such is “I was able to work with this low number of students so I am now ready for more students.” On the other hand a small number of the subjects felt that “I don’t know if I am ready to take on more [students] since I didn’t have that many kids to work with.” Consequently, teacher educators must consider this when planning early clinical teaching experiences.

This follows the same concept of pre-service teachers learning to develop motor, affective, and cognitive learning activities and tasks that will sufficiently challenge their students while also providing a high likelihood of success. This balance of success and challenge is imperative in teaching for both the teacher educator and the pre-service teacher. The Teaching Educational Games course was structured so that the teacher educator could adjust the student-teacher ratio gradually over-time at a rate that would respect the developmental level of the pre-service teachers. Again, as pre-service teachers have learned to first assess their students’ developmental ability and then modify tasks accordingly, teacher educators must do the same. Weekly group discussions were a

valuable component of this study from which the instructor was able apprehend students' changes in self-efficacy throughout the semester. Therefore, teacher educators can use student-to-teacher ratio as a tool as a tool in structuring his or her course to respect the uniqueness of each pre-service teacher's growth and development.

A particular theme, "direct teaching", which emerged in the "lesson plan reflections" is worthy of consideration when examining the pre-service teachers' use of their "Matching teacher-student sex" method. In their reflections, both the male and female PETE students described numerous performance accomplishments when teaching the children motor skills. An "instructional strategy" they frequently used was "direct teaching": where they placed a strong emphasis on the fine aspects of motor skills. Again, the learning the Generic Levels of Skill Proficiency (GLSP) (Graham, et al, 2008) was a course learning objective upon which major emphasis was placed. For example, when completing his written "Lesson Plan Reflection" one of the questions asked John to describe the instructional strategies he used in the lesson for that day. He stated: "I used the direct teaching method. I used this method because the students were young and low skilled. I think giving the kids direct instructions made for little confusion. This strategy also saved time so the kids could have more activities to participate in." When answering this same question, Elizabeth also stated "I used one-on-one direct teaching and demonstrations to instruct the students." Another PETE student, Heidi, stated: "I brought the kids together and used direct teaching. While I was explaining to them each step, I was also demonstrating with one of my peers so they also got the visual aspect of the task

as well.” All three of these statements exemplify the PETE student’s value of “direct teaching” as a specific “instructional strategy” in teaching motor skills.

Kirk (1986) recommended that PETE programs foster culturally competent physical educators who will use an inquiry-oriented approach to teaching rather than produce physical educators which use direct instruction in excess when teaching motor skills. Since Kirk’s recommendations are for PETE programs, and not solely one PETE course, it may be possible that the pre-service teachers in Teaching Educational Games would benefit from courses which stress cultural competence in physical education. When developing the curriculum of PETE programs considering this balance would be highly valuable for the students’ undergraduate academic career.

Directions for Future Research

The mixed-method approach in this study was very informative in that the qualitative data offered substantial augmentation of the quantitative data. Differences before and after were taken into account with both data types. Albeit the lesson plan reflections allowed the researcher to examine changes throughout the semester, more knowledge is needed pertaining to these changes over time. Additional quantitative and qualitative data could be collected throughout the entire course of the semester. It is recommended that future studies implement collecting data specific to this topic via questionnaires and interviews at intermittent points in the semester.

“Verbal persuasions” were not a significant factor in influencing pre-service teachers’ self-efficacy. Previous research (Martinez, et al, 2010) has shown that pre-service teachers’ entered their first teaching experiences with a high sense of self-efficacy

as a result of having had constructive “verbal persuasion” and encouragement from previous instructors. Martinez, et al stated that “It is likely that the lessons learned at university produce an illusory sense of capacity” (2010, p. 262) since the pre-service teachers began to recognize the difficulty in effectively applying their teaching capacity once they had their first real teaching experiences. However, the Teaching Educational Games study did not ask subjects to discuss their level of confidence prior to the commencement of their clinical teaching experiences. The data that was collected prior to the start of these experiences was purely quantitative. Determining whether or not the pre-service teachers in the Teaching Educational Games course were likely to have built a higher sense of efficacy more as a result of prior “verbal persuasions” as in the Martinez et al (2010) study is a question worthy of future investigation. A plausible method would be to administer interviews with subjects prior to the start of the clinical teaching experiences. In these interviews subjects would be asked to discuss any instances of “verbal persuasions” they may have experienced.

Research determining whether or not the theme “Matching teacher-student sex” is simply a phenomenon unique to this study or if it may apply to larger populations- research may be of value. As stated before, while “Matching teacher-student sex” was the least common method the students employed, it is still worthy of future examination. Questionnaires and interviews which initiate discussions specific to the topic of pre-service teachers’ perceptions of the “Matching teacher-student sex”

Conclusion

When answering research question one, results of the TSES showed that males' and females' "self-efficacy" of teaching improved significantly over time. The application of qualitative research methods in addition to quantitative methods was a highly valuable approach in answering research questions two and three. Analysis of data from all qualitative data sources showed many similarities between males' and females' perceptions of effective teaching during their clinical teaching experiences in a PETE course specifically-designed to improve self-efficacy and teaching ability. Evidently, subjects these three teaching skills quite salient since continued to appear in all three qualitative sources of data. Additionally, self-efficacy of "overall teaching" and "instructional strategies" had the two highest averages in the course evaluation when subjects were asked to rate how helpful the course was at improving their confidence in these areas. Those differences that did occur were at a minimum. For example, while "Matching teacher-student sex" was a theme related to gender in teaching and worthy of discussion, the regularity of this theme was trivial.

Subjects that participated in the Teaching Educational Games course benefited greatly from the "hands-on clinical teaching" experiences which provided several constructive "performance accomplishments" and "vicarious experiences". The results of this study should encourage teacher educators in PETE to supply their majors with ample clinical teaching experiences framed around the Self-Efficacy model, early in their academic career. In the process of doing so, recognizing the dynamics of the outcomes of this study should allow future teacher educators to tailor similar courses to the

distinctiveness of their teacher education programs. This study expands upon previous knowledge regarding self-efficacy in teacher education, yet more research is needed on the attributes of creating PETE programs which produce highly-qualified physical educators. More specifically, when PETE programs establish improving undergraduate majors' self-efficacy of teaching as a major program goal, future research is needed to provide more knowledge regarding the psychosocial dynamics of courses specifically-designed around Self-Efficacy Theory.

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APPENDIX A
TEACHER SENSE OF EFFICACY SCALE (MODIFIED)

Appendix A: Teacher Sense of Efficacy Scale (Modified)

Name: _____

Engagement

1. How much can you do to motivate students who show low interest in learning?
nothing very little uncertain some things a great deal
2. How much can you do to get students to believe they can do well in the activity?
3. How much can you do to help your students' value learning physical education?
4. How much can you assist families in helping their children do well in physical education?

Management

5. How much can you do to control disruptive behavior in the gymnasium?
6. How much can you do to get students to follow classroom rules in your lesson?
7. How much can you do to calm a student who is disruptive or noisy in your class?
8. How well can you establish a classroom management system with each group of students?

Instructional strategies

9. How much can you use a variety of assessment strategies in your class?
10. To what extent can you provide an alternative explanation or example when your students are confused?
11. To what extent can you craft good movement tasks for your students?
12. How well can you implement alternative strategies in your class?

APPENDIX B
TEACHER EFFICACY INTERVIEW GUIDE

Teacher Efficacy Interview Guide

Number: _____

Interviewer: The purpose of this interview is to gain more knowledge about pre-service Physical Education teachers' self-efficacy. Your name will be kept confidential by assigning a pseudonym. Please answer as honestly as possible. You may withdraw from this interview at anytime you would like. It is expected to last approximately 20 minutes. Thank you for your participation and do you have any questions?

1. Please tell me about your teaching experiences in the "Teaching Education Games" course.

2. Describe what you do to engage students?

[Probes: "Do you feel you were successful at getting all students involved?"; "Why/why not?"; "Can you provide an example"]

3. What did you see when your peers needed to get all students involved?

[Probes: "Was he or she, or were they, able to get the students involved?" "Why/why not?"; "Can you provide an example"]

4. Describe what you do to manage students' misbehavior?

[Probes: "Do you feel you were successful at getting students back on-task, stop goofing around, misbehaving, etc.?" "Why/why not?"; "Can you provide an example"]

5. What did you see when your peers needed to manage students' misbehavior?

[Probes: "Was he or she, or were they, able to manage when they were off-task, goofing around, etc.?" "Why/why not?"; "Can you provide an example"]

6. Describe what instructional strategies you use to teach good lessons?

[Probes: "Do you feel you were successful using instructional strategies to teaching good lessons?"; "Why/why not?"; "Can you provide an example"]

7. What instructional strategies did you see your peers use?

[Probes: "Was he or she, or were they, able to make lesson plans that were developmentally appropriate?" "Why/why not?"; "Can you provide an example"]

8. Is there anything you would like to discuss about how confident you feel in your teaching skills after taking this course?"

APPENDIX C
PARTICIPANT DEMOGRAPHIC QUESTIONNAIRE

Appendix C: Participant Demographic Questionnaire

Name:

Last: _____ First: _____

Date of Birth: _____ / _____ / _____

Please answer the questions below by circling the word that best describes you. You are permitted to leave questions blank if you so desire.

Gender:

Male Female

Ethnicity:

White Black Asian Other: _____

Academic Class:

Freshman Sophomore Junior Senior

Teaching experience prior to enrollment in “Teaching Educational Games” (KIN

218): *If yes, please state “what” experience/s you have had and the duration of such.*

Yes No

If you circled “Yes” then please describe the setting, age group, and your role:

APPENDIX D
LESSON PLAN REFLECTION

Appendix D: Lesson Plan Reflection

Describe what you did to engage students in the activities during the lesson:

What did you see your peers do to engage students?

Describe what you did to manage misbehavior during the lesson:

What did you see your peers do to manage misbehavior?

Describe the instructional strategies you used during the lesson:

What instructional strategies did you see your peers use?

Discuss anything in your teaching experiences that affects your beliefs about your teaching ability:

APPENDIX E
PEER EVALUATION

Appendix E: Peer Evaluation

Student Engagement

All children participated

Children participated after intervention

Children still did not participate

Comments:

Classroom Management

No students misbehaved

Misbehavior was controlled

Misbehavior was out of hand

Comments:

Instructional Strategies

Activities were developmentally appropriate

Activities were modified to be appropriate

Activities remained inappropriate

Comments:
